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Vol - 16

THE
CALCUTTA REVIEW

VOL. XVI.

JULY—DECEMBER 1851.

"No man, who hath tasted learning, but will confess the many ways of profiting by those, who, not contented with stale receipts, are able to manage and set forth new positions to the world and, were they but as the dust and cinders of our feet, so long, as in that notion, they may yet serve to polish and brighten the armoury of truth, even for that respect, they were not utterly to be cast away."—MILTON.

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In the 2nd column *for* 2.196 *read* 21.96, and so on throughout.

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„ „ 2.816 „ 28.16.

„ „ 2.433 „ 24.33.

Page 40, line 39, *for* diet, *read* dirt.

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CALCUTTA REVIEW

ART. I.—*Decisions of the Sudder Dewaní Adawlut. Calcutta. Military Orphan Press. 1851.*

WE propose to consider the present state of the Anglo-Indian Courts of Justice, more particularly those which have been established under the presidency of Fort William; and to enquire into the reasonableness of that charge of inefficiency, which has lately been brought against them.

Since the publication of the drafts of those enactments, which threaten to deprive British subjects of their cherished privileges, and to place them upon a level with the millions of their fellow-men in India, the cry against the Courts of Hindustan has been raised with more vehemence and perseverance than ever: and those courts, which exercise jurisdiction over a hundred millions of civilized beings, have been represented as places characterised by incompetency and corruption. If this be true, as we believe it to be eminently false, it is indeed highly expedient that the Government should be informed of it, before the expiration of the charter, in order that the Governor General, who cannot, however, be supposed to know much about the matter, should bring the evil prominently forward, and thus afford Her Majesty an opportunity of covering the plains of the Indus, the Ganges and the Nerbudda, with Supreme Courts, with Barristers learned in the law, and with Attorneys, who shall “wander about the country with their ‘blue bags, not caring six-pence for the Huzzár.’”

Whether such an importation would supply the alleged desiderata of efficiency and purity, may reasonably be questioned. We think that it would not; and that, on the contrary, many evils would thus be added to the Mofussil judicial system, from which it is now comparatively free.

It is not pretended that the courts of India require no improvement. Every thing human can be improved: but, imperfect as these courts may be, their defects are attributable to the political and social condition of the country; and nearly all of them belong, in an equal degree, to the Queen’s Courts of Calcutta, Madras, and Bombay. Let the administration of justice be improved in every possible way; but let us not be run away

with by the supposition, that the inhabitants of the Northern Sircars, or of Rohilkana, would be benefited by the introduction of English law, and English lawyers. The Supreme Court is held in abhorrence by the people of more distant provinces. The word "Warrant," commonly applied by them to every species of process issuing from that terrible tribunal—dim, vast, and distant—bears to their minds a cabalistic meaning: it falls amongst them like a thunderbolt, and they understand it about as much: but they are clearly sensible of the deadly effect which it produces, and they pray to Allah, or to Brahma, to save them from the judicial lightning.

We cannot stop to contrast this picture with the Supreme Courts, such as they were intended to be, when first established.

Who, without the aid of History, would believe that one of the chief duties of the royal Judges, who were first sent out to India, was the protection of the natives from the servants of the Company? Who, judging from what they now see, would believe it? Is it the witness, who is dragged down from the sands of Bhattiana to the Bay of Bengal, because an Englishman cannot be tried out of Calcutta? Is it the victim of constructive inhabitancy? Or is it the native gentleman, who is hunted from place to place by a "warrant," till at length the interference of the Company's servants saves him? No!—defects there are: but, when we have examined them a little more, we shall find that they are not peculiar to the Company's Courts.

With the state of the law itself, we have at present no concern. It will be admitted that the whole bench of English Judges together would experience the greatest difficulty in administering it; but the greater the difficulty, the greater is the credit due to those, who have succeeded in administering it to the satisfaction of the people. The voice of the public, the native public we mean, not the few Europeans of a single city—the millions, not the units;—the voice of India would support the assertion that such success has been obtained; and, if perchance a complaint should be heard, it would be there, where the Courts have been influenced by their hereditary conceptions of English law, where their European ideas of practice, or their European notions of evidence, have led them to extend to Asiatics the principles of a system, which is wholly inapplicable to their condition. The law, however, is not the object of our present attention, but the state of the courts: and in pursuance of this subject, we shall first glance at the complete efficiency of the agency for the decision of civil suits, which we conceive to be a most

important point, and shall then proceed to consider: 1st, the qualifications of the presiding officers; 2ndly, the alleged corruption of the Amlah; and 3rdly, the fitness of the Courts for the trial of Europeans, charged with the commission of criminal offences.

There has not often been in any country a more effective agency, than that which is employed by the British Government of India, for the prompt decision of all civil disputes, and the immediate trial of all criminal offenders. The civil business of the country is entrusted to Munsiffs, Sudder Amíns, principal Sudder Amíns, and Zillah Judges, who receive and dispose of cases according to their several grades; whilst, at the seat of each Government, is fixed the Sudder Dewaní Adawlut, the highest court of civil and criminal jurisdiction, which, in addition to its judicial duties, exercises a visitatorial authority over all the subordinate Courts. In these Courts, except the last, arrears are unknown. The local jurisdictions of the Munsiffs have been carefully adjusted with reference to the expected income of cases, and to the convenience of having these rural Courts fixed in the vicinity of Mofussil treasuries (*tahsilis*). These local jurisdictions are altered, whenever any apparently permanent alteration occurs in the ordinary proportion of the income of suits at the several Munsiffis. A Court of this grade is abolished in one part of the country, and re-established in another, when the Sudder Dewaní Adawlut see fit to make the arrangement; and, as the total number of Munsiffs' courts throughout the country is at present sufficient for transacting the sum total of civil business, the strength of the judicial agency is easily and speedily adjusted to the demands of each part of the country.

The Sudder Amíns' courts have generally very light files; and they are most useful in relieving the Munsiff's files, whenever, from temporary causes, an accumulation has there taken place.

The principal Sudder Amíns' Courts can hardly be considered as quite distinct from the Courts of the Zillah Judges, though the functions of each are quite separate: but it is foreign to our purpose to enter into particulars on this dry part of our subject, more than is necessary to show the efficiency of the judicial agency employed. The courts of the principal Sudder Amíns are very seldom overwhelmed with business; and, whenever they are, an additional principal Sudder Amín is appointed. The heaviest work of a Zillah Judge is the hearing of Munsiff's appeals; and this class of cases he can make over to the principal Sudder Amíns. Thus, if the Judge is

pressed, he relieves his files by transferring suits; and, if the principal Sudder Amín is pressed, an additional officer is appointed. Here then, as in the case of the Múnsiffs' courts, no arrears can accrue; and the principal Sudder Amíns are moved to any part of the country where their services may be required, just as the Múnsiffs are moved. A more efficient agency, so far as strength is concerned, can hardly be conceived; and no one will deny to this underrated judicial system the merit of affording speedy justice.

We do not enter upon the integrity of the native Judges. It is a subject full of interest, one upon which the most conflicting opinions are entertained, and one of greater importance, perhaps, than even those subjects which now occupy our attention. The integrity of the Múnsiffs and Sudder Amíns is not what is alluded to by those who complain of the "corruption" of the Anglo-Indian Courts: the corruption complained of is in the accepting and *demanding* of gratuities by the Amlah, in consideration of which they are supposed to exercise an influence over the Court, though no one seems to know *how*. When the word "corruption" is used in these pages, it is to be understood in this sense.

1st—The qualification of the Judges themselves is the *cheval de bataille* of those, who think somewhat worse of Mofussil Courts than we do. The Government officers, it is said, have had no professional education; therefore are they unfit. They are not independent; therefore are they unfit. They are under the influence of corrupt officials; therefore are they unfit. Now to all malcontents we will be very liberal. We will admit a great deal more than they can prove; which is exceedingly generous on our part, and we expect them to be grateful.

Be it granted then, that the civil servants of Government, being nominated by favour from amongst the educated classes, cannot possess more than the average ability of that class. The Judges of the Queen's Courts are precisely in the same predicament. *They* cannot possess more than the average talent of the educated classes; and yet no outcry is raised against them. We find no fault with Her Majesty's Judges; but when people are making speeches and drawing up petitions, in order to save themselves from the much abused Mofussil Judges, men are apt to enquire, "what makes the mighty differ?" In support of the extravagant opinion, that the difference is not so great as Town Hall oratory would lead us to suppose, we will merely refer to the speech delivered some little time ago by Lord Brougham, in the House of Lords, on the subject of Colonial Appeals. We will not be as ungracious as His Lordship

was, nor quote passages, which might be unpleasant to others, however strongly they support our views. Enough will be found there, by those who look for it, to satisfy any man, that, in the opinion of the Ex-Chancellor, the Colonial Judges do not rise in natural talent above the average of educated men.

But, it is urged, they receive a legal education, and thus become far more fitted for the discharge of judicial functions, than men who have not enjoyed that advantage. That a knowledge of the origin, history, and principles of the civil law, of the canon law, and of the common and statute laws of England—an acquaintance with the systems adopted by modern nations—a familiarity with the natural rights of persons and of things, and a habit of discussing and solving difficult legal questions, are valuable qualifications in a Judge, is most true. But these are qualifications, which unprofessional men frequently possess, and the acquirement whereof, to a certain extent, is indispensable to every one, who aspires to the character of a well-informed man. There are many well-informed men amongst the civil servants of the Government. It is the knowledge of the technical part of law, and particularly of English law, founded, as it is, on the feudal system and the authoritative modifications thereof, which it is so difficult to acquire. Let any man (not being a lawyer) open the commonest law book we have; let him take (perhaps the most valuable, as well as the commonest) Blackstone's Commentaries, and read a few pages in half a dozen places in the two first volumes. If he do not get a lively idea of the sort of knowledge given by a professional education, and a mortal disgust to the process of acquiring the same, we will never pretend to direct his studies again. But if he should rise from the perusal (as we prophesy he will) vexed, confused, puzzled,* and wondering whether his own stupidity, or the unintelligibility of the book, is the cause of his supervening headache, then we expect him to join us in declaring, that the professional education of an English lawyer is not indispensable to the discharge of judicial functions, in a land where men are not yet reconciled to the difference between law and justice, and where they conduct their legal proceedings in the same language, as that which they employ for ordinary purposes.

In one point, however, there is certainly a very great inferiority on the part of the Anglo-Indian Courts. They have no bar: and they require an able bar, even more than the royal Courts. Those only, who have had practical experience, can appreciate the value of able Counsel, well *up* in their cases—

* "The puzzled reader thinks himself the dunce."—*Pope*.

especially its value to the Judge, more particularly in Courts where the proceedings are conducted in a foreign language, and where it is not yet well understood how much all parties are benefited by adherence to the rules of pleading. The hours that are lost in Indian Courts, whilst the Judge himself wades through voluminous and ill-written documents, in search of the *points at issue*, which the Vakils are unable or unwilling to lay before him, would astonish an English lawyer. The wear and tear of body and mind, in the months of May or June, depend very much upon the ability of the Pleader; and memory or imagination may suggest to many the sensation of increased weight, when a fresh case has been called on, and the announcement made, that the greatest block-head at the bar has the privilege of conducting it. Some able men there certainly are at the Indian bar; and there is probably a variety of talent amongst the Barristers of the Supreme Court also; but the two extremes of ability and inability are far more widely separated in the Indian, than in the English, Courts. The ablest Vakils get the cases that pay best, not the most difficult cases;—and the Judge has, consequently, the least assistance where he requires the most. It has often been observed that, in England, an able, clear-headed and well-educated man would be competent to decide any cause whatever, although he had never entered a Court, or opened Coke upon Lyttleton, provided that the cause was conducted by thoroughly competent Counsel. It might give him a good deal of trouble, and occupy five or six days, instead of one; but he could do it at last, as well as his more practised and more learned brethren. Nothing of this kind obtains in the Anglo-Indian Courts. Here the Judge has to do all the work himself: and the desultory conversations which are thus occasioned, even before the trial commences, are almost inconsistent with European ideas of the dignity of the bench, and are in open defiance of Lord Brougham's precept, that, until the trial is concluded, a Judge should be "seen, not heard."* Yet more;—not contented with failing in their own part of the duty, these incompetent Vakils often interfere with the Judge's performance of it for them; and, rather than confess their ignorance of the mere facts of a case, they give a wrong answer, and thus inevitably mislead the court, until the error is discovered at a subsequent stage of the proceedings.

It is just within the sphere of possibility, that Queen's, as well as Company's, Judges may have had some personal experience of the nature described; but it is not to be denied, that the bar in

* See his character of Sir William Grant.

the Queen's Courts is immeasurably superior to the bar in the Company's Courts, and the advantage to the Judge is proportionate. The remedy is not so easily found: but a great step has been taken by Act I. of 1846, which authorizes every Barrister of the Royal Courts to plead in the Courts of Sudder Dewaní Adawlut.

It may be admitted then, that Indian Judges are ignorant of the technicalities of English law, and that they have very little opportunity of learning anything from the pleaders. Nevertheless, they are by no means deficient in legal education of that sort, which is of real importance; and, if they learn nothing from Pleadors, they have learned much from that book which is open to all. From his early youth, the civil servant, who will be one day placed on the bench, is incessantly and laboriously engaged in fitting himself for his future duties. As he works his way through the subordinate grades of office, he becomes intimately acquainted with the affairs of men. He learns the various peculiarities of commercial transactions in India; and, far more difficult task, he becomes familiar with the complicated rights and tenures of the agricultural community. No man ought to be a Judge, who has not been a Collector. The *kacheri*, in which the assistant decides a case of assault, or listens to a summary suit for rent; the tent, that most efficient and popular of all Indian Courts, in which the settlement officer studies and adjusts the proprietary rights of acquiescent millions; the office, in which the Magistrate and Collector for many successive years manage districts as large as Yorkshire—these are the schools, in which the Indian Judges study law. There is no other school in which it is taught; nor are the students inattentive to their studies. Whatever may be said, it is a fact that ought to be acknowledged, that (taking them as a whole) a more zealous, able, and hard-working body of public servants is nowhere to be found. Day after day, and all day long, are these men to be seen still performing their onerous duties, through the almost insupportable, dry, burning heats of May, and the more dangerous hot damps of August. They labour not in vain. They learn the language, the customs, the feelings, the character, and the *law* of the people: and thus they become, not merely fit to be Judges in the land, but literally the only class of men, who *are* fit to be judges in the land. And shall these men be pronounced useless—shall they lose that best reward of meritorious exertions, the praise of good men, because they cannot explain the nature of a bill of discovery, or discourse upon the statutes of Mortmain?

Amongst other grounds of disqualification alleged against Indian

Judges, it has often been asserted that they are not independent. If this merely implies that the Judges are not by law independent, and therefore that evil consequences *might* ensue, we have little to say upon the subject; but if the Judges are accused of not being *practically* independent, nay, of being even "sycophantic and servile," whilst in the same breath, the Government itself is charged with making them so, we are persuaded that the charge is wholly incorrect. The Judges are Britons, as "free-born," and as proud of their national character, as any Englishman in India. They have not, by coming to India, lost the characteristics of English gentlemen, any more than the merchants, the lawyers, or the indigo planters: nor would they consent to hold judicial office for one day, if the Government attempted to dictate to them. Those, who assert that the Judges are not practically independent, are not, perhaps, so well informed as they might be in regard to the constitution of the civil service, and the principles upon which offices are distributed and held. A Civilian cannot, indeed, resign his appointment at once, and retire to his country seat; but he can quit any office, or avoid any office, if he think that he is not permitted, or that he would not be permitted, conscientiously to discharge the duties thereof. Such recusancy, if respectfully conducted, does not involve loss of the service. It may involve stoppage of promotion; but we feel certain that there is not a single European Judge in the three presidencies, who would not accept an inferior appointment, rather than allow the Government to interfere with him in the exercise of his *purely judicial* functions. Even supposing then that the Government could be so absurd as to desire to interfere, the consequences to the Judge, of resisting such interference, would not be ruinous: there would be no sufficient inducement to succumb to power: the necessity would not be strong enough: and experience warrants our concluding that, under such circumstances, the weakest man will behave like a martyr. As to the grosser parts of the charge, we defy any one to adduce a single instance, in which the behaviour of a Judge has been "sycophantic" or "servile," while we could, at a moment's notice, quote half a dozen, which would prove the very reverse.

The Indian Judges are practically as independent as the Judges at home are. Even the latter are not altogether irresponsible; and, if they were incompetent or corrupt, the fact would very soon be brought before the Houses of Parliament. If Mr. Courtenay Smith was pleased to reject the security of Government, and thus destroy all confidence on the part of the people towards their rulers, we cannot consider that the Go-

vernment interfered with the independence of the Judge, when they found fault with his eccentric proceeding.* Yet, even in this instance, the judicial order would have been respected, and other means taken to get rid of it, had there been reason to believe that the order had been seriously and conscientiously recorded. Our own idea is, that it was a joke!—rather a bad joke, it must be confessed. Every one, who knew the Judge, believed it to be so; and it is said that, when some members of the House of Commons prepared to defend the independence of the bench, Mr. Courtenay Smith wisely declined their assistance, being apprehensive of “carrying the joke too far.”

If, again, Mr. Lewin did that which tended to rouse the Hindu population against the Government, we cannot blame that Government, for defending itself against the consequences of Mr. Lewin's dangerous language. We do not, by any means, undertake the task of defending the proceedings of the Marquis of Tweeddale on that occasion. Judge Lewin was right enough, and probably might have defied the most noble Governor, had not Mr. Lewin addressed the Hindus indiscreetly. Judges who act in this way, would hardly find themselves independent, in one sense of the word, even in England; nor are they in that sense independent here. Does any one suppose that the Judges themselves would not remonstrate and memorialize incessantly, if they felt that they were often treated in such a manner as to make them sycophantic and servile? Are the personal characters of the gentlemen, who now occupy the Sudder bench at the several presidencies, no safeguard against this monstrous tyranny of the Government? We have seen what Madras Judges will do, if necessary: and there are men equally independent, and equally determined at the other presidencies. Are such men as Mr. Welby Jackson and Mr. John Colvin at Calcutta, Mr. LeGeyt at Bombay, or Mr. Henry Lushington at Agra, servile sycophants? No:—the Government and the Judges understand their relative position perfectly: the judges are *practically* independent: and, if any of our readers should still be incredulous, we beg to refer them to the record offices of the four Courts of Sudder Dewani Adawlut. When they have completed the perusal of the contents of those Archives, and not before,—we shall be happy to resume with them the subject of the independence of the Anglo-Indian Judges.

The next objections raised against the Company's Courts

* The security was tendered, we believe, in the shape of Company's Paper in the usual course of a civil suit: and its rejection evidently tended to destroy all mercantile credit.—Ed.

are, that the Amlah are corrupt, and that underhand influences are in constant operation. How far the first of these accusations is true, we shall presently discuss; but the second is too vague to deserve a serious answer. As in the matter of independence, so on this subject, we say, that if no more is intended than that parties, concerned in suits, use every endeavor to bring their names and their interests to the favourable notice of the Judge, we are disposed to admit it; and further to maintain, that the attempt is made in Calcutta and in England quite to the same extent, though the Judges and the Public are more ignorant of what is going on: but, if it is intended to say, that the Anglo-Indian Judges *are* influenced in any way, we must take leave to demur. We do not believe it. The source of this idea, that the Judges are influenced by considerations not actually pleaded, lies very deep; and we shall return to the subject when we come to speak of the nature of evidence in this country. At present let us attend to our friends the Amlah, and enquire to what extent they are guilty of that corruption, which is so constantly laid to their charge.

The practice of accepting voluntary presents, as is well known, is not held to be disgraceful by the native community. The act, if committed by an officer of a court, is criminal, both according to English law and according to Anglo-Indian practice. All the native officials (we do not include any grade of native Judges), or very nearly all, take these presents, or bribes, whenever they can get them; and, if they did no more than this, the evil would not be intolerable. The stream of voluntary donation does not, however, flow so copiously as is desired; and a villainous system of extortion has been organized, which has hitherto baffled the energetic efforts of the ablest men to put it down. The amount of legal knowledge possessed by a Welsh squire or a Scotch farmer, may be a fair measure of the learning possessed on the same subject in India by a Goruckpore Zemindar, or a Mafidar of Delhi. Although the Zemindar and Mafidar think otherwise, all are in the hands of others, whenever they are compelled to have recourse to the Civil Court. The first class who profit by the sad necessity, are the agents, or Moktars, of the unfortunate litigants. These men are sometimes members of the litigant's family, sometimes family servants, sometimes employed for the occasion, sometimes professional, and sometimes acting in conjunction with the professional Moktars, or Attorneys, who do not leave the vicinity of the Court. They manage the case, appoint Counsel, and fee the Amlah. All parties unite in drawing money from that mysterious spot, "where the cause of action arose;"

and even the Pleaders, being now, by law, allowed to get as much as they can, are accused of becoming channels of communication between the Moktars and the Amlah, and of not taking the trouble for nothing. The circumstance of their being now authorized to take any amount of remuneration peculiarly fits them for this office, and presents a formidable obstacle to the progress of those, who endeavor to trace to their ultimate destination the sums which are forwarded from the Mofussil. Agents, Pleaders and Amlah are all of one mind: they do not think that they are acting infamously: they are in very little danger of being discovered; and, whatever may be the particular degree of guilt of any one individual, it is universally admitted, that the whole firm together have reaped as rich a harvest, as if they had been members of a Calcutta mercantile establishment, or had held office under the Supreme Court.

The whole of this combination, however, has for its object solely the extracting of money from the pockets of the suitors. The trial itself is a distinct affair; in the conduct of which, the Pleaders, however exacting they may have been previously, are not accused of sacrificing the interests of their clients. We anticipate the comments, that, when men once accept unauthorized emoluments, they will not be very scrupulous as to the nature of the return; and that, if the Amlah made no return, or if the adversary's Vakíl made none for them, the supplies would soon be stopped. This is a very natural and a very English idea, and it is, no doubt, true in many instances; but it forms no part of the remarkable system, which we are attempting to describe. The characteristic of that system is, that the natives do not consider it disgraceful; whereas nothing would, in their opinion, be more disgraceful, than the sale of justice, or the betrayal of his client's cause by a Vakíl. If the Vakíls should be treacherous, of course the Court is helpless; but under no other circumstances is it in the power of all the conspirators together to affect the judgment of the Court. The system flourishes most, where the cases and the decrees are of the highest value: and the Courts of Sudder Dewaní Adawlut must therefore consent to appropriate these remarks chiefly to themselves. We maintain then, that however large a sum may have been paid by the litigants, however crafty may be the agents, however willing to mislead may be the Amlah, it is not in the power of them all put together, to affect the decision in the slightest degree, unless the Vakíls themselves are either treacherous, or grossly incompetent. The contrary has been asserted; and, if it would not lead to a mass of uninteresting detail, we could illustrate the subject, and, as we think, strengthen our own position, by enumerating and discussing the

several devices, by which it has been supposed possible that the pleaders might influence the Court. Of course a state of things may be imagined in which our assertion would be incorrect; but these are extreme cases, and do not bear upon the general question. It is not many years since we heard of a Judge in England so deaf, that he could not hear the Counsel; and the somnolency of the British bench is matter of story.

Then *why*, it will naturally be asked, do the suitors continue to pay money, when experience must have shown them that they pay it in vain? Experience has *not* shown them that they pay it in vain. They know that they pay, and one party knows that he wins. This would of itself be quite sufficient to perpetuate their folly, even if nothing else contributed to deceive the suitors. The hopes of gain, however, on the part of the receivers and payers, are sustained by more plausible arguments. In a very numerous class of cases, the Vakils know pretty well how the decision will be; and the same must be the case in England. In these they prophesy with confidence and success, and the state of the law in regard to special appeals, which are rejected in great numbers, facilitates in a remarkable degree this lucrative prediction. The unanimous opinion of several lawyers will not prevent the suit, as it does in England. The litigants distrust their legal advisers, and put much faith in perjury and forgery; so that they frequently persist in defending an untenable position, and enable the Vakil of the opposite party to forestal the result with positive certainty. On such money-bearing occasions, the agent writes to the principal, who is sure to win, a coaxing, threatening letter, of which some amusing specimens have lately been brought to light—the gist of the matter being, that, if a certain sum of money be sent, the Amlah have promised to give their aid, and that success will then be certain. It is certain all along; but the victim knows nothing of this. He is engaged with his *rubbi* or his *khurif* collections, or he is reading the Koran, or he is encroaching upon his neighbour's land; and the whole knowledge, which he possesses of the progress of his law-suit, is derived from the "*khutts*" (letters) of his agent. But the agents do not always wait for such favorable opportunities. They keep constantly urging their principals to send more money for "*khurcha*" (law-expenses); and the application is invariably accompanied by the assurance, that, unless the money be sent, the suit will be lost. They are believed. If the money is not sent, and the suit is lost, the misfortune is attributed to the want of "*khurcha*;" if the money is sent, and the suit is gained, the party believes that he has purchased the decree. Sometimes *hoondees* are sent, the payment of which is condi-

tional upon the successful issue of the suit: sometimes the money is to be paid in proportion to the advantage gained: various are the forms of extortion, but one general feature belongs to all. The court officials combine to persuade suitors that money is required; and, when it comes, they divide it in proportions, which depend on circumstances. When any stir is made, the whole blame is thrown on the agents. In many cases it is very possible that these may be the only persons in fault; as also it is very possible that they may be altogether blameless.

There is no doubt, as to the *fact*, that money flows in this way towards the Sudder Courts. *That* is proved by the admissions of the payers, and by the unexplained remittances—the number and amount of which may be ascertained by any one, who has access to the files of the Courts and to the books of the bankers; but it is very difficult to obtain legal proof as to the actual recipient. The following circumstances occurred within our own knowledge; and with them, we shall close our observations upon the *futility* of “khurcha” payments.

A. had a suit in the Court of Sudder Dewaní Adawlut at Agra, in which he was the respondent, having obtained a decree in the Zillah Court. A. sent his relative B. to Agra as his agent. When the cause was about to be called on for decision, A. received a letter from B., assuring him in the usual manner, that, if A. did not immediately send Rs. 2,000 for “khurcha,” the decree, which A. had obtained, would be reversed. A. procured the *hoondee*; but, before dispatching it, he thought of consulting C. Now C. was one of the ablest men in India; and though a native, possessed moral courage as well as ability. He folded up the *hoondee*, and looked into the case: and, having satisfied himself, he assured A. that his decree could not be reversed, *because* there were no grounds, whatever, for reversing it. “If the money be not sent,” exclaimed A., “I shall lose ‘my cause.’” C. remonstrated in vain; till, at last, seeing no hope of otherwise saving his friend’s money, he unfolded the *hoondee* again, and *tore it up*. In due course arrived the news that the decree had been confirmed. “This is well,” observed C.; “but had it turned out otherwise, A. would have believed that I had colluded with the other party, and would have ‘remained my enemy for life.’”*

From the moment, in which it becomes known that such a system of corruption does actually exist, it is the duty of every public servant to exert himself to the utmost for the purpose of putting an end to it: and men naturally look for complaints

* C. is a Syud and a Tuhsildar: and if any one, having read this little story, wishes to make him a Deputy Collector, it will not be difficult to find him.

and prosecutions, for dismissals from office, and for sentences of Criminal Courts. Few appear: and, when they do, it is generally found that the complainants are acting from malicious, or revengeful, motives. That corruption exists, is not denied, except by individuals: but it is not that species of corruption, which raises indignation in the mind. The agent, the pleader, and the ministerial officer unite in extracting money: but, as we have endeavoured to show above, it by no means follows that they therefore betray the interests of their employer, or that any attempt to mislead the Court is made by the Amlah. On the contrary, the harvest having been reaped, or being ready for the sickle, they proceed to the business of the trial itself, as soberly as if they were all honest men. The plan is a safe one. They thus secure the good opinion of their official superiors, the European Judges; and, as for the payers in the provinces, they know by experience, that they have little to fear from their enquiries, or from their murmurs. The extortion practised is legal extortion—but not what the word at first conveys to the mind. Legal extortion is the receipt of any benefit, to which the receiver is not entitled, or before he is entitled to it, in virtue of the office which the receiver holds. The natives see very little criminality in this. The consequence is, that offences of this description are not considered disgraceful; prosecutions by private individuals are rare;* and the character of the Courts is silently and seriously injured. The bench itself is therefore the proper quarter, from which prosecutions should issue; and occasionally its interference has been salutary. But the Judges have no leisure for a systematic crusade against the enemy. They are the very persons, whom all try most anxiously to deceive. They are necessarily impressed with a favourable opinion of those, who invariably behave well in their presence; and there is a natural aversion to the mixing up of judicial and visitatorial functions, which leads many men to refuse to *seek for charges* against their official subordinates. Some few individuals disbelieve in a general system of corruption; and some men, conscientious and weak, are willing to enquire, but are deterred from launching into that sea of trouble by the dangerous rocks and shoals, which lie directly in their course, and which threaten, not only failure in the enterprise, but actual shipwreck and utter ruin.

Still corruption exists: mild perhaps in its nature, and diffi-

* So rare are they, that they may be said to be unknown. Nor is this to be wondered at, since the law allows of an action for defamation against any one, who brings forward charges of corruption, which are not proved. The principle is sound. But those, who know India, will smile at the idea of some small Zemindar attacking the Amlah and Vakils of the Sudder Dewani Adawlut.

cult to reach : yet a slur upon the administration of justice, and demanding the attention of those, who defend, and would improve, it. Such attention it has lately received—at least in one quarter—not indeed from the unwilling or the weak, but from vigorous and resolute minds, which fear the storm, as little as the calm :—and, although we maintain that, with all their defects, the Company's Courts are far more efficient than the “free-born Britons” will allow them to be, we feel it incumbent upon us not to pass over in silence the praiseworthy proceedings against corruption, which have lately been taken in the N. W. Provinces.

The Sudder Court at Agra has, for some time, enjoyed rather a bad character in respect of that peculiar species of corruption, which we have been discussing. The Judges of the Court have been men of fair ability, large experience, and unimpeachable character; but they were overwhelmed with work; and amongst them have possibly been some, who deny that corruption ever existed at all. They did little to check an evil, which some of them believed to be imaginary. But, whatever the deniers may assert, the cry in some parts of the country became loud and constant : the acceptance of presents had grown into the demand of them, and the demand had been enforced by significant threats: even the natives began to complain, and to prefer their complaints to the local authorities; till at last a public officer rose up to defend the cause of the people, and to offer his services in removing the stain of *ministerial* corruption from the highest civil and criminal Tribunal in the country. This daring intruder upon the slumbers of the Sudder was John Cracroft Wilson, the magistrate of Moradabad. He announced to that Court, that their Amlah were corrupt: and he offered to *prove* it. He specified cases, and he enumerated proofs. His witnesses were bankers, native gentlemen, and the Amlah themselves. He offered to go to Agra; and he *did* go to Agra. He presented himself at the door of the Court's consultation chamber, and was admitted: there he repeated and explained all that he had written, and strove to rouse the Court to cordial co-operation.

“The Bench so wise,

“Lift up their eyes,

“Half-wakened by the din, man !”

It is foreign to our purpose, though there is more to be said upon the subject than is dreamed of in any man's philosophy, to follow Mr. Wilson through his dangerous course. Suffice it, that, although vigorously and effectively supported by the Government, the rocks and shoals, above hinted at, proved to be more hidden and more treacherous, than could have been sus-

pected. Their existence was traditionally known; but none of them were down in the chart: and the whole skill of pilot and seamen was required to conduct the good ship into a safe port. Whether that port has yet been obtained, we do not exactly know; but it is known to the public, that numerous cases were committed by Mr. Wilson to the Sessions Court, and that convictions were obtained in every one of them. It is true that some of the sentences were subsequently reversed in appeal; but the Court which tries the case, is the Sessions Court; and the convictions of that Court are very little impugned by the fact, that some of them are occasionally reversed by the Nizamut Adawlut. The appeal to the Sudder in criminal trials is necessary; and there will not be one dissenting voice upon this subject amongst practical men. Nevertheless, in nineteen cases out of twenty, the right of appeal is abused: and, *as a general rule*, subject of course to exceptions, the guilt or innocence of the prisoner is determined in the minds of men by the finding in the Sessions Court. In the Irish state trials, every body knew that the prisoners were guilty, although the craft of the lawyers enabled them to defy the majesty of the law: nor is it matter of surprise, that such able, wealthy, and influential men as the Amlah and Vakils of the S. D. A., should have exerted themselves with effect at Agra, though they were unable to escape conviction in the Sessions Court of Moradabad. In that Court success had been complete: and since we have mentioned by name the gentleman, who has been the agent of the Government and of the Sudder, in bringing the malpractices of the officials to light, and since the preparation and commitment of the several cases have been canvassed in no very charitable spirit, we think that the fairest way to all parties will be to subjoin the recorded opinion of the Judge on the course pursued by Mr. Wilson:

“On the whole, I think it but fair to the magistrate here to
 ‘ record my opinion, that a most impudent attempt has been
 ‘ made by the prisoners to exculpate themselves by inculpating
 ‘ him, who had been instrumental in bringing their misdeeds to
 ‘ light, and who, whatever petty indiscretions he may in over
 ‘ zeal have committed, has, in my humble opinion, performed a
 ‘ great public good, and merits all praise for his energy and
 ‘ ability.”

Here the learned Judge gives us a glance at one of those rocks we spoke of: but we must leave details, albeit interesting in their nature. All we desire to show is, that if, as alleged, the Amlah are corrupt, there are energy, determination, moral courage, and ability on the part of the Government, and some of its officers, wherewith to root out the evil. The Morada-

bad trials have attracted much attention in the North-western Provinces, and have been the means of bringing the Agra court more prominently forward, than the courts of the other Presidencies. There is, however, nothing peculiar in the condition of the Agra court, except the peculiarity of having discovered and checked the evil. The blame attaches to the people, not to the court. It is their national character and idiocratical estimate of this particular vice, which enable ministerial corruption, of the nature described, to creep into our Courts of law. Calcutta, Madras, and Bombay, King's Courts and Company's Courts of all grades, are similarly circumstanced; and, whenever in Bengal, or in the Deccan, in the Carnatic, or in Tank Square, another J. C. Wilson shall appear, the knaves of those localities will receive the same reward, as that which has lately been conferred upon their brethren in the North Western Provinces.

To these Anglo-Indian Courts the few Englishmen of Calcutta object to become amenable. The Courts, they say, are not good enough for them. In discussing this part of our subject, it will be impossible to avoid some comparison between the Queen's and Company's Courts in India. The question indeed almost resolves itself into one of the respective merits of the two Courts. We freely admit that the Judges of England are far superior to the Judges of the Mofussil Courts. No comparison is attempted between them; and we are most willing to grant, that men, equally able with the ablest of England, may have sat, and possibly are now sitting upon the bench of the Royal Courts in this country. With this we have nothing to do. Our concern is with the *average* ability possessed by these learned men: and this, we have already endeavoured to show, cannot, in the existing state of things, be greater than the *average* ability of the educated classes. We had much rather be tried, *in England*, by one of the Judges of the land, than anywhere by a Company's Judge, or by a Judge of the Supreme Courts; but that is all. If we were accused unjustly of having committed a murder at Delhi, we might hesitate between the learned and the talented Judge of England, and the experienced Judge of India. We should not hesitate at all between the Indian Judge, and the Judge of the Royal Courts. We should infinitely prefer the former. This is in reality the point at issue, since all that the discontented can hope for is, to remain amenable to the Supreme Court, as it is: and this Court, as it is, cannot ascertain the truth so well as the Mofussil Courts of the Company. We pass over the inalienable, indefeasible, and indestructible rights of free-born

Britons, as we conceive that amusing subject of Town Hall oratory to have no more to do with the matter, than the game-laws have with the prohibition of Sâtis; and we proceed to the more important considerations of language, evidence, counsel, and juries,—all of which most materially affect the efficiency of Courts, civil or criminal.

In the first place then, the Judges of the Supreme Courts do not understand the language, in which the evidence of the witnesses is delivered. The evil of such a state of things is palpable; and it would be waste of time to enumerate objections, which must suggest themselves to every body. Every word, uttered by the prisoner, or by a witness, has to be interpreted to the Judge, who thus becomes very little better than a Judge of appeal, poring over written depositions: nay, he is not so good;—for the Royal Judge does not understand the words used by a witness, until they have been translated into English, whereas, the Company's Appeal Judge has before him, in writing at least, the very words used by the deponent. If a European British subject be accused of committing a crime at Meerut or Lahore, he and the witnesses are sent to Calcutta. They might as well be sent to England! Men, accustomed to the weighing of evidence, well know how difficult it sometimes is to fix a witness's meaning, although he stands before them, speaks their own language, and has the same ideas, the same feelings, the same turn of mind, the same religion, and the same customs with themselves. How must that difficulty be increased, when the examiner and the examined have nothing in common! The deposition loses a great deal by translation, and much more by the Judge's want of familiarity with the habits and prejudices, and above all, the superstitions of the deponent; till, by the time the result rests on the minds of the Judge and the Jury, it bears very little resemblance to that result, which the witness intended to place there. There is something almost shocking in the picture of a Supreme Court criminal trial. The Judge, in crimson and white, not understanding one word uttered by the prisoner, or the witnesses; the green table below, crowded with black gowns, all equally well informed in the particulars under consideration; a Jury, who may know a little more of the language, but are still more unable to weigh with delicacy the evidence of a Mofussil witness; an interpreter, mechanically performing his daily task, and utterly unmindful of all those niceties of diction, tone, and manner, which enable a more acute observer to distinguish truth from falsehood; and lastly, when the accused is a native, a prisoner totally unable to comprehend what it is all about, wondering, staring, helpless,

and resigned—until the interpreter, or some one else, informs him, that the trial is over, and that he is presently to be hanged!*

How those, who advocate the general introduction of the English language, propose to overcome these difficulties, let them show. It is not denied that many important advantages would flow from the use of English, the language of the Judges: but if it be not also the language of the prisoner and of the witnesses, we see not how those scenes are to be avoided, which can be fitly described only by two words of very opposite meaning—scenes which are at once dreadful and ludicrous. The Persian was never in use in the Indian Courts, as English is in use in the Supreme Courts. Persian was not the language of the Court; it was only the language of the *record*. The witnesses were examined in Hindustani: the Judge spoke Hindustani: nobody translated to him the words of the witnesses, except, indeed, as bystanders in England sometimes translate the words of a Yorkshire or Somersetshire ploughman.† The Nazir and other ministerial officers, present at the trial, all spoke Hindustani. There was none of that undefined alarm, which must overwhelm a prisoner in the Supreme Court. Yet, even this state of things was pronounced objectionable; and a language, utterly unfit for the purpose, without the aid of Persian or Arabic, became the language of the record, as well as the language of the Court, simply because it was the language of the people. May it not then be taken as granted, that any European British subject, in his right senses, and charged with an offence which he has not committed, would prefer being tried by a Judge, who understands the language of the witnesses? This advantage would be given to him by the act, which has not yet passed into law.

But the chief superiority of the Indian Courts over the Queen's Courts consists in their greater power of appreciating evidence. If there were nothing else to be said in their favour,

* At the risk of telling an old story, and for the benefit of those, who may not have heard it, we venture to put into an unpretending note, a little dialogue said to have taken place in one of Her Majesty's Supreme Courts.

Interpreter.—"Prisoner at the Bar, how will you be tried?"

Prisoner.—"Ap ma bap."

Judge.—"What does he say?"

Interpreter.—"My Lord—he says he'll be tried by "*God and his country*."

"Ap ma bap" literally means "you are my mother and father." It is an idiomatic phrase, implying "just as you please;"—"whatever you think fit," by which the stupid or indifferent reply to any thing, which they do not, or care not to understand.

† We ourselves, many years ago, heard a respectable old lady inform Mr. Justice Bayley that she "had had a swimmer for luncheon." It turned out that she had not eaten either Leander, Lord Byron, or Pesce Cola:—but we quite forget what she *had* eaten.

this one great merit would place them immeasurably above any other Courts of any other form or constitution. The Judges of the Supreme Courts are able men, learned in the law. They are fully competent to the duties of their office. They are as conscientious and unprejudiced as Judges can be, and no "free-born Briton" needs fear to see any one of them seated on the bench, if he should have the misfortune to be unjustly accused of crime—at Exeter, or at Hertford: but, if he is to be tried in India, it would be far safer for him to prefer his plea of "Not Guilty" to a Company's Judge. If the crime is supposed to have been perpetrated in one of the few cities, in which European British subjects bear some proportion, however small, to the mass of the people, the Queen's Court, with its European ideas, is so far more fitted to perform what is required of it; but, if the crime is supposed to have been committed in Sylhet or in Aurungabad, where the proportion above mentioned is infinitesimally small, then, we repeat it, the innocent man would have a better chance of escape from conspiracy and falsehood, if a Company's Judge tried him, than if he were arraigned before Sir Lawrence Peel, with Mr. Theodore Dickens for his Counsel.

Talent cannot supply the want of experience in a Judge—especially in a Criminal Judge—especially in India: but experience will very often supply the want of talent all the world over. Now, nothing but very long experience can enable any man to appreciate Indian evidence: and such experience the Queen's Judges do not possess. Doubtless, they have heard native witnesses examined in great numbers; they have some intercourse with natives: they have daily opportunities of learning something from the conversation of others: thus they are far more competent to the task than Lord Brougham or Lord Campbell would be: but, as the Queen's Judges in India would be found, for this all-important purpose, superior to the Judges at home, so, and for the same reason, are the Company's Judges superior to all others. The sort of experience demanded is that which is acquired in those schools, where, as above described, the Company's servants study law:—the *kacheri* of the Assistant Magistrate, the tent and the mangoe tope of the settlement officer. The latter is the only Court in India, in which the truth is ordinarily spoken: and the future Judge, as he contemplates the phenomenon, learns to discriminate and acquires a power of detecting falsehood, which it is almost impossible to analyse.

The extreme difficulty of acquiring any skill in this occult science, and the extreme danger of exercising it, led our ances-

tors to the adoption of the grand principle, that "all evidence must be assumed to be true:"—a principle than which none can be more unsound, or more certain to mislead, in India. So far from holding all evidence to be true, until it is shown to be false, the very first thing, which an Indian Judge does, is to enquire how far circumstances support the direct evidence. No one knows better than he does the value of the aphorism "circumstances cannot lie;" and no one knows so well as he does, that men can and do lie. In almost all cases, Civil or Criminal, the Indian Judge has to determine, not whether any alleged fact or set of facts has been proved, but which of two conflicting *proved* facts, or set of facts, is the true one. So very easy is it for a prisoner to obtain proof of any thing he chooses to assert in defence, that a very able and conscientious Magistrate, not a boy Magistrate, but one of twenty years standing, on one occasion, gravely placed on record, his surprise that "in India *any* amount of proof should have been held sufficient to establish an *alibi*." The extent, to which perjury and forgery are practised in India, surpasses any thing that a European mind can conceive. The annual reports of the district Judges incessantly acknowledge and lament this melancholy truth, and suggest various remedies. The state of the law is unsatisfactory; and fresh enactments have repeatedly been urged upon the legislature. Act I. of 1848 was an attempt to aid the executive in the prosecution of forgery: it has failed; and an act to amend it is now before the Legislative Council. The crime of perjury too, though so very common, is not by any means easily dealt with. The peculiar modes of thought and expression, which distinguish the Asiatic from the European, are so difficult to understand thoroughly, that it has been thought unadvisable to give any functionary, below the rank of a Judge, the power of punishing perjury. It is scarcely necessary to explain that Magistrates and their assistants possess judicial powers to a certain extent. The prevalence of perjury, and the difficulty of procuring convictions in the Sessions Court, have frequently suggested the propriety of investing Magistrates with authority to punish "prevarication," as a contempt. It is, however, so certain, that natives can always be made to contradict themselves—that zealous young officers often do unintentionally make them contradict themselves—and that these contradictions are not always "deliberate and malicious,"—so certain is all this, that, independently of the obvious objection to placing such arbitrary authority in inexperienced hands, it has been judged safer to keep the law as it now stands.

In illustration of these remarks, we will mention a case which

lately occurred. A. B. and C. were own brothers, and according to B. and C., they were all three joint sharers in a landed estate, inherited from their ancestors. A. admitted the relationship, but denied that B. and C. had ever been in possession: that is to say, he pleaded the statute of limitation. B. and C. brought witnesses to prove that they had been in possession of their shares within the period prescribed by law. This is a very common form of action in some parts of the country—the point at issue being simply, whether B. and C. had been in possession at a particular time. D., one of the witnesses produced by B. and C., deposed distinctly to the fact of their possession: whereupon a Moktar forthwith denounced the witness as perjured; and from the record was presently produced a *previous* deposition, in which D. had, with equal distinctness, declared upon oath, that A. was the proprietor of the disputed property, and that he, A., had held “sole possession” at the time referred to. This looked very like perjury, and so it was actually considered by some authorities: nor did the short space of time, which had elapsed between the first and second depositions, admit of any probability that the memory of the witness had failed him. D. charged with the perjury, admitted the contradiction, but vehemently protested that he had never intended to depose falsely. The case here reminds us of the trial of Kit Nubbles, in the Old Curiosity Shop, where Mr. Richard Swiveller is made to give evidence, which injures, instead of benefitting, the prisoner, because he could not explain, or because the Court would not let him explain, what he meant to say. Our witness D. could no more set things to rights than Mr. Richard Swiveller. The Sampson Brass of the occasion triumphantly pointed to the contradiction; and D. was convicted. Yet D. was not guilty. A more careful examination of the papers, and a more intimate knowledge of D.’s position in life, showed that, on the former occasion, he had spoken as a *Puttidar*, on the latter as a *Proprietor*. The *Lumberdar*, or manager of a puttí, is frequently spoken of by the Agricultural population as the party in possession; nor are the rights of the co-parceners at all compromised thereby. In the village in question, there were several puttís. When D. said that A. was “sole possessor” of his puttí, he meant that the proprietors of the other puttís had nothing to do with A.’s puttí;—in other words, that the puttís of the village were separate:—and, when he subsequently said that A. was “not sole possessor” of his puttí, he meant that they were other sharers (*sharik*) besides A., and that A. was only the *Lumberdar*. The case appears clear enough here: but, had the

officer, before whom it first came, been acquainted with the nature of a Bhyachara community, D. would not have been found guilty of perjury. We will venture to assert that this functionary never made a settlement under Reg. 7, of 1822. D. was eventually released.

This single instance, however, which has been adduced to show the *sort* of law, which an Indian Judge ought to have studied, cannot save the people at large from the heavy charge of habitual falsehood. We wish it could. To prevent mistakes, we shall quote another case, remarkable on account of the number of false-swearers, and the certainty that perjury had been committed by them all. Similar cases are occurring every day.

Some years ago, A., a wealthy Talúkdar of the Ganges Doab, was accused of murdering B., by deliberately firing a loaded gun at him, whilst an affray was going on in the village. A. pleaded an "alibi." The numbers may not be exactly correct, but the record is extant, and that will show that twenty-five or thirty witnesses swore on the trial, that they had seen A. deliberately take aim at B. and shoot him, whilst forty or fifty more, amongst whom, alas! were several *respectable* men, swore, that at that time A. was twenty miles off. Both parties swore falsely. The truth was perfectly well known at the time to the whole district, in Court and out of Court, including the Judge and the Jury. A. did *not* fire a gun at B. or at anybody else; and A. was *not* twenty miles off. He was at the village in his own house, which he never left, lest he should be accused, as he was: but whether from his retreat he encouraged or checked the affray, is known only to his own party. What is to be done with a people in such a state as this? To us it seems wonderful, that any social system at all should exist, whilst such wholesale perjury pollutes the land. What is the use of laws, and tribunals, and councils? Of what avail are the painful meditations of honest statesmen? What matters it, whether Persian or English be the language of the Courts, whether Queen's Judges or Company's Judges occupy the bench?—nay more, of what value are even the integrity and experience of the Judges, when *all* can be neutralized, nullified, annihilated, by this most pestilent vice? Here is the real defect—here is the real sin of Oriental Judicature. Moral education is the only remedy: not that education, which teaches Bengalis to read Milton, nor even that which will teach the natives to read Putwaris' papers and check an Amin's account, but that which shall teach them the abstract beauty of truth, the usefulness of truth, the absolute necessity of truth, to the well

being of every civilized society*—we should have said to the *existence* of civilized society, did not the contrary stare us in the face. The fault is the fault of the nation, not of the Courts; and those are most competent to deal with it, who are best acquainted with the national peculiarities.

The consequence of this fearful abounding of perjury and forgery is startling. The common principles of evidence, having been found inapplicable to the state of society, have been to a great extent set aside; and recourse has been had to other, and, as it would be thought in England, more objectionable means of ascertaining the truth. Direct and indirect proof have changed places. An item of circumstantial evidence is of more value than an eye-witness. Probability goes beyond proof. Certain classes commit perjury and forgery more than others, and more freely upon some, than upon other, subjects. A Brahmin, if in easy circumstances, may lie less than a Chumar; and the member of a Puttídarí community, if left to himself, will be less likely to forge than a Kayat. He is, indeed, less able to do so. The higher castes have shame, whether they have morality or not: but the lower classes have no fear of being found out; and, if they should be, the discovery brings with it no disagreeable social consequences. A Rajput, who has some respect for truth, will, nevertheless, lie about land: and, in the matter of an affray between two villages, all that the Judge and Jury need know is to which village the witness belongs. The rest is a matter of course.

In all this there is nothing new. The numerous eastern anecdotes, which relate the discovery of truth by some clever trick on the part of the Kazí, indicate most clearly the want of veracity on the part of the people, and the necessity in which the Judge found himself placed of applying to something more trustworthy than ordinary evidence. Hence too, the predilection for confessions, which police officers, in defiance of all orders to the contrary, still glory in obtaining, as the only proof which will fully satisfy the Court. The impossibility of trusting common evidence, drives the Courts, as well as the Kazís, to seek for some other guide: and, if the substitute be not good, it is at any rate better than that for which it has been substituted. In Civil suits the Múnissíffs decide as

* A moral system will never bear with any force upon the mind of the masses without a religious sanction; and nothing but a true religion will make a people truthful and upright. The time is coming, when Government will be driven by necessity, either to give India religious education, or give over education into the hands of those, who *can* make it religious. The plea in England for a mere secular education is, that the parents may teach the children religion at home. Will that plea avail here?—ED.

much as possible in defiance of the *misl*, knowing well that truth is seldom there; and any one may ascertain this for himself, who will take the trouble, *first* to win the confidence of these native Judges, and *then* to question them. They cannot do this to any great extent, in consequence of our system of appeal. A decree must not be opposed to the evidence; and Munsiffs frequently give decisions, opposed to their own convictions, because they know that any other decision must necessarily be reversed in appeal. In short, Kazís, Munsiffs and Judges, look beyond the record, when they are called upon to determine a disputed fact. Information, obtained out of Court, will thus have an influence, which it would not otherwise possess: the public voice will have some weight, however little: and here we get a glimmering of the real character of that "undue influence," about which so much has been said, and so little understood. It is not undue influence, but very due influence indeed; and, if our view of the matter be correct, it is infinitely more *due*, than the orthodox influence of notorious falsehood.

It would be very satisfactory here to examine how far the abolition of oaths, in the Indian Courts, has contributed to the prevalence of perjury and to the success of forgery; but it is scarcely within the sphere of our present enquiry. It is a fact that, with the exception of a few well-meaning enthusiasts, the Judges have unanimously condemned Act 5 of 1840, which substituted a declaration for an oath. Sudder Courts have forwarded these remonstrances to Government, and have strongly advocated the repeal of the law. Let the Government say, why the remonstrance has been in vain. The harm done by that enactment is the same, whether Anglo-Indian Courts or Royal Courts are established throughout the country; and the subject is therefore distinct from the comparative fitness of the Company's Courts; nor have we time now to enter upon the discussion. Our object has been to give some insight into that state of society, which has made circumstantial evidence preferable to direct evidence in a great majority of cases*:—and, to return to the point at issue, we again ask, whether a Judge, who has been studying this state of society for twenty or thirty years, is not more likely to come to the right decision, than a judge of the Supreme Court, aided or impeded by his Calcutta Jury.

* In trials for *Murder*, the natives of upper India lie less: nay, they frequently speak the truth. Many men thus will swear away a man's liberty, who hesitate to swear away his life. The Perjury, which is of course the same in both cases, does not enter into the question. In lower Bengal, we regret to say, that, when passions are once raised, Landlord and Tenant stick at no perjury, whether it affect fame, lands, or life itself.

The inferiority of the Bar is an admitted defect in the Anglo-Indian Courts: but already the barristers of the Supreme Courts are authorized to plead in the Sudder Courts; and nothing would be easier than to authorize them to plead in the district Courts also. The obstacle to the improvement of the native bar is want of money: for the fees in the highest courts will not support more than a few men of first-rate ability. British subjects, however, European or native, would not be worse off in this respect than their brethren of Calcutta or Madras, since it is said that even there lawyers do not plead gratis. In Calcutta, they certainly do not, as many persons know: and this want of means is, in fact, the real difficulty, so far as criminal trials are concerned, even as the law now stands. If any Barrister or Attorney chose to present himself in any Criminal Court of the country, as Moktar, or Counsel for the prisoner, and showed a disposition to conduct himself soberly and discreetly, willing to give to the Court the assistance of his learning or sagacity, and confining himself to the duties, which properly belong to him—if such a person should present himself as Counsel for a prisoner, he would be cordially welcomed, and attentively heard. But if he went there, presuming on his European birth and professional privilege; if he arrogated to himself an authority to which he had no claim; if he could not refrain from showing how little he cared for the Huzzúr; or if he insulted the Judge on the bench—then, indeed, he might meet with a very different reception. He would possibly enough be fined for the first offence, and turned out of Court for the second.

We cannot close our remarks on the condition of the Anglo-Indian Courts, without noticing the Juries. The state of the jury law is one of the objections raised against the Courts: and it is urged that a Jury, whose verdict is not final, cannot be regarded as a Jury at all. Such a court, it is said, is not one in which an Englishman ought to be tried. These objectors do not go on to say what alterations they would like. They do not propose to place native Juries upon the same footing with English Juries; nor do they do anything, except find fault. These men cannot be aware of the difficulties by which the subject is surrounded, or of the pains and attention which have already been bestowed upon it. The introduction of trial by Jury into India is one of the most delicate operations, which the Government can be called upon to perform: and in the introduction of those measures, which must precede the full establishment of the system, it is impossible that the interests of a few persons should be allowed to interfere with that which

is considered good for the millions. It seems that no great inconvenience would be felt from the insertion of a clause in favour of European British subjects, by which they would not be liable to be tried by a native Jury; although the institution of Juries, with the powers and duties of English Juries and no other powers and duties, would do away with the whole benefit now derived from them in India. As Juries are now constituted, we are disposed to agree with those who deny that they are Juries at all; and we think that the objections raised are mainly attributable to the mistaken notion that they resemble British Juries. They are widely different; and it has been questioned whether they are not of more use, than those which they are supposed to resemble. The peculiarities of India—the various tribes and classes into which its population is divided, each having customs, opinions, habits, and religious prejudices of its own—are so numerous and so different from each other, and all are so different from what we see in European society, that a life of labour has been found insufficient to render the Company's Judges thoroughly familiar with them. Therefore the Courts were authorized by Reg. 6, of 1832, to avail themselves of the assistance of respectable natives. If the experience and local knowledge of the Indian Judges give them any advantage over the Royal Judges, that advantage is greatly increased by a law, which enables them to call the natives themselves to aid in the investigations. The present Jurors resemble assistant Judges: they detect falsehood with far greater certainty than any Judge can; they frequently suggest very pertinent questions; and the Judge has the opportunity of looking upon the case, as the natives look upon it, without being compelled to adopt their views. This sort of assistance could not be so well afforded by the English dealers of Meerut or Cawnpore, or by the clerks in the public offices. It could not be afforded by them at all; and it would be a grievous mistake to substitute a *bonâ fide* jury of these persons, for the respectable natives, who now *assist* the Judge. The hypothesis is, that an Englishman is accused of an offence which he has not committed: that he is to be tried by an Englishman sitting as judge; and that the witnesses brought against him are natives. Under these circumstances, we are convinced, that the advice and suggestions of a few intelligent native gentlemen would be far more conducive to justice, than the *verdict* of twelve English shop-keepers. Do not call them Juries; and every one will admit their usefulness:—and all men, of all breeds and countries, will allow some merit in a judicial system, which aims at uniting the integrity and information

of the European Judge to the acuteness and local knowledge of the native community.

Whether it would be safe to allow Juries to find the facts, as they do in England, is a distinct question. We follow many abler men in thinking that the natives *can* find the facts of a case better than the Court can; but it is doubtful, whether they could be safely trusted with the power. They do not as yet thoroughly understand the duties of a Jury, properly so called. They give way to kind feelings, and have no idea that they are doing wrong. They favour a Brahmin. They take it for granted that a Gújur is a cattle stealer, and that a Mewattí is a dacoit. And, however correct these preconceptions may ordinarily be, they are altogether opposed to the simple finding of facts. The present system enables the Judge to avail himself of their ability to find facts, unwarped by their prejudices or pre-possessions; and, though we do not go so far as to say that improvement is not required, we feel sure that no better system could, *by mere legislation*, be at the present time introduced into India.

Taking then a general view of the whole subject, the Anglo-Indian Courts appear to be as good as can reasonably be expected, and not wholly unfit for the trial of Europeans charged with criminal offences. They are located all over the country, so that the offender would be promptly tried where the offence was committed: the language of the prisoner, (supposing him to be a European) is known to the Judge, as well as the language of the witnesses; the qualifications of the Judge, *for the purposes of a criminal trial*, are not inferior to the qualifications of those, who, in the existing state of the law, sit in judgment upon European British subjects; their practical independence is equal: their experience is far greater, and of a kind infinitely more valuable; the corruption, so much talked of, is the fault of the people, not of the Courts, and it pervades all the tribunals of India alike: there is nothing to prevent any prisoner employing English counsel, if he can pay for it: whilst the greater power of appreciating evidence, and the assistance of natives, give to the Anglo-Indian Courts a positive superiority over all the other Courts of Hindustan.

The very small number of those, who object to becoming amenable to the Anglo-Indian Courts, is rendered still more glaring by the fact that, a numerous class of European British subjects have not offered one syllable in remonstrance. The Civil and Military servants of the Government—there are some thousands of them—see no objection to the proposed enactments. Do the inhabitants of Calcutta imagine that these

classes are silent only, because they are connected with the Government? If so, they give us a fresh instance of that ignorance of India, with which they are so commonly charged. The rules of military discipline would not interfere with a matter of this nature: still less are the civilians tongue-tied; and is it to be supposed that they have to a man, resigned all their "inalienable, &c." rights, though they would run no risk in asserting them? The reason is as clear as spring water. These classes are well informed as to the real state of the Anglo-Indian Courts.

The Sudder Courts, moreover, are always consulted previous to the passing of a new law. We will not undertake to say that much attention is paid to their advice: but the opportunity of placing their sentiments upon record is invariably afforded them: and we wish it were in our power to produce the correspondence on the present occasion. The Judges of the four Sudder Courts may be allowed to be better acquainted, than any body else with the tribunals, in which they themselves have so long presided. They might be arraigned before these very Courts; and, in giving their opinion on the proposed enactment, they must have felt that they were almost representatives of the civil service. It would be most interesting, if we could learn what these men said: for, if they all remonstrated against being made amenable to the Mofussil Courts, it would go very far to shake our confidence in the opinion which we have formed: and, if they did not, we should attach even less importance than we now do to the grumbling of Calcutta.

And are the subjects of other European nations to be held as nothing? They have been long subject to the Anglo-Indian Courts: and no inconvenience has been felt. If the Courts are not fit for Englishmen, neither are they fit for Frenchmen, or Germans, or Americans; and common sense and common humanity demand that these classes also should be provided with Courts. Their case is much harder than the case of Englishmen. He has at least a Judge of his own nation, sitting on the bench, and speaking the same language with himself; whilst the unfortunate Frenchman has no one to sympathize with him: Judge, Jury, and witnesses are all foreigners to him; and, if he had the Code Napoleon in his pocket, there is very great probability that the Court would be unable to read it.

It has been said that the Criminal law, administered in the Anglo-Indian Courts, authorizes severe sentences. If the extreme limit of the powers of the Court be referred to, this is to a certain extent true; but it is by no means true that

severe sentences are ordinarily passed. There is a wide discretion left with the Magistrates and the Judges; and it is very doubtful whether this be a good or an evil. Where the minds of the Judges are unwarped by religious or political prejudices, it is, perhaps, better for the people that this discretion should be left with them; though it is not clear that the advantage thus gained in peaceful times will counterbalance the disadvantage which would be, or at least might be, and certainly has been, felt in times of national disturbance. There is no fear of this kind in India, as the Government is now constituted. The functionaries of this country are, from education and experience, necessarily liberal in all their sentiments. They have so little in common with the mass of the people, that there is nothing to bias their judgment, or to work upon their feelings. The tendency therefore will always be to the side of leniency, such being the natural impulse which humanity would communicate; and in effect, the full punishment warranted by law is scarcely ever inflicted. Our concern, be it remembered, is not with the law, but with the Courts. It is remarkable that, in one of the few instances in which the Legislature has interfered with the discretion ordinarily entrusted to the Sessions Court, they have, by the consent of all parties, committed an error. The *minimum* punishment of perjury is three years imprisonment; the Sessions Judge cannot award less: yet so peculiar are the cases of perjury in this country, and so frequently is a wretched and ignorant *chumar* made the tool and the victim of his more wealthy master, that the sentences for three years are incessantly referred to the Nizamut Adawlut for mitigation—a recommendation, which is invariably complied with.

The system of Criminal Appeals too seems to have been constructed with special reference to the mitigation of sentences. An appeal lies from the Assistant to the Magistrate: from the Magistrate to the Sessions Judge: from the Sessions Judge to the Nizamut Adawlut. These authorities may acquit the appellant, or may mitigate the sentence passed upon him; but not even the Nizamut Adawlut can “enhance the punishment, or pass sentence on a party acquitted by the Court below.”

There is also another light, in which the lenient character of the Indian criminal administration may be contemplated with satisfaction. The regulation law, the Muhammadan law, and the law of England, as well as the laws of most civilised nations, condemn the murderer to suffer death: but all Codes are not equally precise in explaining what constitutes “wilful murder.” There are fine-drawn distinctions and verbose principles enough

to be found in the Muhammadan law ; but the Anglo-Indian Courts are nevertheless constantly obliged to apply for assistance to the better digested and more intelligible principles of English law, though they are not necessarily guided thereby. They draw from English law their answer to the question, What constitutes wilful murder? and agreeably thereto, the *intent to kill* is held to be a necessary element in the crime : but here they stop ; and when the common law goes on to define “implied intent” and to subject it to the same penalty with “express intent,” then they interpose their discretionary authority, and judge for themselves. The “express” intent to kill is in Anglo-Indian practice generally followed by a capital sentence ; but there are many cases in which the Judges of Westminster would hold the intent to be “implied,” and in which the Indian Judges would reject that inference. An instance will perhaps illustrate our meaning.

Many years ago, in Scotland, two friends agreed to watch a grave and protect it from expected violation. They sat up at night armed with guns. Hearing a noise in the burial ground, they proceeded in different directions, to ascertain the cause. Presently, one of the two came upon a man close by the grave ; misled by the darkness of the night, and influenced by his preconceptions, he fired upon him. The stranger fell dead. It was his own friend ! The unfortunate survivor was tried for “wilful murder.” In conformity with the law, as laid down by Lord Mackenzie, he was found guilty, and was by that Judge *left for execution*. In Indian Courts, the prisoner’s life, in such a case, would not be in danger. Considerations, obvious enough to minds untainted by legal subtleties, but to which Lord Mackenzie could pay no attention, would be allowed to have weight with a judge of Meerut or of Patna ; and the highest crime, of which the accused could be convicted, would be “aggravated culpable homicide.” Let every man determine for himself by which law he would rather be tried. In our estimation, “Ap ma bap” is a more lenient Judge than “God and my country.”

We consider it of very little consequence at present, whether the Black Acts become law, or not. The only one of the four, which could not be dispensed with, without endangering the peace of the country and bringing the authorities into universal contempt, has been passed : and we see no good ground for objecting to the other three, unless it be that some time hence they will give the Government officers a great deal of trouble. These enactments, or other similar to them, must be passed sooner or later ; for it is absurd to suppose that a sepa-

rate system can be permanently maintained merely to gratify a few individuals. These persons complain of the courts of the country, but their complaints are too vague and indiscriminate: and we hope that we have succeeded in placing the subject before the public in a light different from that in which it has been usually contemplated. That men, *selected** for their talents, would be abler Judges than men of average ability, no one will be disposed to deny; but men of such extraordinary powers will not come to India at all. There is some chance of our getting a fair proportion of first-rate men, under the present system: but we should have no chance at all, if we waited till one man had discovered that he could obtain a seat on the judicial bench of England, another that he could make £10,000 a year at the Bar, or a third that he could lead the House of Commons. It is equally true that men, who had studied law, in the enlarged sense of the term, for several years after they had arrived at manhood, would be abler Judges, than men who had learned all their law at Haileybury College; but, independently of the enormous increase in the expence of education, we cannot spare to our future judges the unreturning years of their youth; they cannot be excused the painful drudgery of the assistant's *kacheri*, or the invaluable training of the settlement officer's encampment. The law, which he learns there, is of more importance to him than the law, which he would learn at home: and therefore, until some plan can be devised, which shall give to the civil servants of government the learning of England as well as the experience of India, it will be well to abstain from unjustly depreciating those, who are doing their duty in the station in which it has pleased God to place them. European British subjects cannot be more anxious to improve the Judges, than the Judges are to improve themselves, and their Courts: and, if instead of roaring at Jupiter, they would put their shoulders to the wheel of the Anglo-Indian waggon, they would soon improve the tribunals, and establish a system of judicature, as efficient as is consistent with the peculiar circumstances of British India, and the general imperfections of human nature.

* The weakest point of the present system is, that men are not "selected for their talents" from among those, who *have* come to India. If the Judges of Zillah Courts were selected, as the Judges of the Sudder Courts are, there would be much less ground for the complaints made (and often justly) against Anglo-Indian administration of justice.—ED.

- ART. II.—1. *Military Musings*, by Col. J. S. Hodgson, 12th Regiment, Bengal Native Infantry.
2. *A Treatise on the public health, climate, Hygiene, and prevailing diseases of Bengal and the North-west Provinces*, by Kenneth Mackinnon, M. D., Surgeon and Medical Storekeeper, Calcutta. 1848.
3. *British and Foreign Medico Chirurgical Review*. No. IX. Article on Dr. Mackinnon's *Treatise of Tropical Hygiene*. January. 1850.
4. "European Soldiers in India." *Bengal Hurkaru*. 1850.

A SINGLE fact published in the *Quarterly Review*, and afterwards in a little half-crown pamphlet, some few years ago, by that popular writer, Sir Francis Head, attracted more attention to the subject of railways, than all the scientific volumes that had previously issued from the press. Thousands had been in the habit of travelling by "Rail;" but few were aware, that on every Monday morning throughout the year, on one particular railway, a new engine and tender, costing £ 1,250, were put upon the line. The fact was an astonishing one, and set men's minds thinking, and calculating, if this occurred on only one railway in the United Kingdom, what must be the enormous expense, and still more enormous incomings, of these undertakings, to enable them to return a profit?

Would it be thought less startling, or of less interest with reference to the subject before us, viz., the mortality of European troop, in this country, to be told, that "the British soldier, who now serves one year in Bengal, encounters as much risk of life, as in three such battles as Waterloo?" It is, as if every private at present serving in H. M.'s regiments at Calcutta, Dinapore, and Allahabad, were called upon three times a year to expose himself to the dangers of such a conflict, in which one in forty of the combatants fell; and this, too, not for one year, but for several. Carry out the calculation still further, by adding the number of men invalided, and the number of those who die on their way home, or soon after reaching England; then multiply the whole by the number of years that European troops have been serving in India, and reckon what has been the amount of mortality in the three presidencies during the last century!

How often has it been our lot, at some of our large military

stations, to hear at early dawn, the dull sound of the muffled drum, and the long drawn notes of the trumpet, followed by the rattling discharge of musketry, announcing that another of our countrymen had been committed to the silent grave; and yet how seldom is the enquiry made as to the aggregate of deaths occurring in our European regiments, or the conviction brought home to us, that there is a fearful amount of unnecessary waste of human life occurring yearly amongst their ranks, immensely exceeding the slaughter of the bloodiest battles recorded in history.

The most valuable and accurate work, that has ever been published on Medico-Military Statistics, is *Tulloch's Parliamentary Returns*: and it is much to be regretted that, out of the voluminous documents at present lying in the offices of H. M. Inspector-General and the Hon'ble Company's Medical Boards at Calcutta, Bombay, and Madras, a similar abstract has not been prepared by order of Government. Still there have been labourers in the cause, who from time to time have given to the public the benefit of their observations and researches, and have made earnest appeals to "the legislative branch" of the Government, for correction of the evils that exist; and amongst this class are the authors, whose names we have prefixed to this article.

Before going into the subject of Tropical Hygiene, which forms the bulk of Dr. Mackinnon's Treatise, we would collate from the different sources open to us, a few of the most important statistical facts, the correctness of which may be vouched for by the authority under which they were published. They will shew in a clear and tabular form, what the mortality of European soldiers, serving in India, amounts to, and what are the proportional rates of deaths at different stations in different years:—

TABLE I.

Shewing the annual mortality from sickness in every 100 men, both European and Native, of the three armies of Bengal, Bombay and Madras, for the last 20 years.

In every 100	Bengal	Bombay.	Madras.
Europeans	7.38	5.078	3 846
Natives	1.79	1 291	2.095

This table is taken from a valuable paper by Col. Sykes, on the "Vital statistics of the Indian army,"* and (it must be remembered) does not include casualties in the field, or while on service, nor yet the mortality from cholera in Scinde. The most striking fact here shewn is, that the loss of life amongst our European soldiery in Bengal, is double of what it is in Madras: or in other words, that whereas 74 out of every 1,000 die annually in Bengal, only 38 in the same number would be the loss in the sister presidency. The causes, by which this difference may be accounted for, we shall notice hereafter.

The next table is extracted from Dr. Martin's work on tropical climates, and exhibits the relative salubrity of several military stations in the Bengal presidency:—

TABLE 2.

STATIONS	Ratio of admissions per 1,000 of strength.	Ratio of Deaths per 1,000 of strength.
Berhampore.....	2 196	82.742
Dinapore	2 398	64.261
Fort William	1.883	62.781
Chinsurah.....	1 930	62.954
Cawnpore	1 599	47.689
Ghazeepore	1.438	36.922
Kurnal	988	2.681
Meerut	1 109	2.816
Agra	1 360	2.433

To make this table thoroughly understood, it must be explained that the column of admissions shews the numbers of cases sent into hospital. Thus, it will be observed, on taking the mean of these nine stations, that there are nearly two attacks of disease annually for *every* European soldier in Bengal. These comparative results of locality and climate were obtained from documents, furnished by the Inspector-General and the Medical Board, and extending over a period of ten to twelve years.

Let us, in the next place, ascertain what is the average duration of life amongst the *same class of men*, serving in England and other temperate climates.

* Statistical Society's Journal.—Vol. X, page 124.

TABLE 3

STATIONS.	Period of Observation			Mean Annual Strength	Annual ratio of mortality per 1,000.	Increase of mortality per 1,000 beyond that of Great Britain.
	Years	From	To			
<i>Temperate.</i>						
Great Britain	10	1819	1828	46,460	15	
Canada	7	1816	1832	2,975	11	
Malta	8	1824	1831	2,226	15	
Gibraltar	7	1816	1822	3,267	20	5
<i>Tropical.</i>						
Madras	4	1827	1830	11,820	48	33
Bengal	7	1826	1832	8,700	57	42
Windward & Leeward Islands }	19	1810	1828	5,768	113	98
Jamaica.....	19	1810	1828	2,528	155	140

From this statement, which is only one out of many similar calculations of much interest, published by Dr. A. S. Thompson, in his *Prize Thesis* "On the influence of climate," we observe that the ratio of mortality is in every case greater amongst British troops in tropical, than in temperate, climates; and that in India, it is nearly four times, in the Windward and Leeward Islands more than seven times, and in Jamaica ten times greater than what occurs in Great Britain.

Our next point is to ascertain whether all Europeans suffer to the same degree; or whether this great mortality is confined to the ranks of European soldiers. Dr. Hutchinson, the late Secretary to the Medical Board at Calcutta, in the appendix to his work on Indian Jails, says, "The mortality among officers of the British army, serving in tropical climates, is not so high as that of the soldiers. Thus, taking the mean of all the tropical stations, where British troops were employed, the annual ratio of mortality per 1,000, among the officers, is about twenty-nine, whereas, among the soldiers, it is seventy-eight. The comparatively low rate of mortality among the officers serving in tropical climates, compared with that of the private soldiers, shews how the influence of a tropical climate may have its deleterious effects ameliorated by care; and, although we cannot attribute the increased mortality, which occurs among natives of Great Britain, entirely to their habits and condition, it is to be expected that the mortality might be materially diminished by careful attention to the diet, clothing and accommodation."

To this all writers agree. Gibbon, after stating that "the Roman soldiers, from their excellent discipline, maintained health and vigour in all climates," (Asia and Africa being included), adds, "that man is the only animal, which can live and multiply in every country from the Equator to the Poles." Niebuhr, also, who saw all the companions of his travels perish around him, remarks, in his account of Arabia, that, "their diseases arose from their European mode of life, such as eating too much animal food, and exposing themselves to the night air." Colonel Sykes, whose valuable paper on the statistics of the Indian Army we have before quoted, says emphatically, "*The climate of India is less to blame than individuals : for in case foreigners find the people in a country healthy, they should, to a certain extent, conform to the habits of the natives also.*" But a writer of the present day, Dr. Daniel, who was located on the most deadly part of the African coast in charge of H. M. troops, gives actual proof from ocular demonstration of the truth of these remarks. At Rio Formosa, which he visited in 1839, he found two vessels moored a short distance from the mouth of the river, one of which had buried *two entire crews*, within the short space of five months, a solitary person only remaining; the other, which had entered at a much later period, had been similarly deprived of one-half of its men, and the remainder were in such a debilitated condition, as to be incapable of undertaking any active or laborious duty. He concludes thus: "And yet, amid these regions so rife with disease and death, I have known Europeans reside for a number of years in the enjoyment of good health, from the simple secret of moderately conforming to the habits of the natives, as regards diet, exercise, and attention to the due performance of the cutaneous functions."

This brings us to the real object of the present article, viz., How may this dread mortality and sickness be lessened, or avoided? Why do we sit down in a state of stoical apathy, and say, "It must be so, because it always has been so?" We are confounding the "post hoc" with the "propter hoc." We cannot change the climate, it is true: but we "can mould our obsequious frames to the nature of the skies, under which we sojourn*;" we can study the habits of the natives of the soil among whom we dwell, and "call to our aid those artificial means of prevention and amelioration, which reason may dictate and experience confirm." †

* Dr. James Johnson, on Tropical Climates.

† Ibid.

The causes of disease that produce such fearful loss in the ranks of our European regiments in India, may be classed under two heads: 1st. Those connected with the locality itself, in which the troops are placed, including climate, position, barrack accommodation, ventilation, and drainage; 2ndly. Those over which the individual himself has a control, such as personal habits, occupation, amusements, &c.

We shall briefly show by one or two examples, what has been done by sanatory measures in diminishing the destructive effects of some of our most unhealthy stations in this country.

From a return shewing the mortality at Hong Kong and Tinghæ, we find that, at the latter place, there died, in less than six months, viz., from July 13th to December 31st, 1840, no less than 433 men in three of H. M. regiments. The 18th regiment lost fifty-two, the 26th regiment 238, and the 49th regiment 143. At this rate of mortality, an entire regiment would have been destroyed, as regards numbers, in a twelve month.

		per cent.		In 1,000 Men
At Hong-Kong in 1842 there died	19	or		190
" 1843 "	22	"		220
" 1844 "	13½	"		135
" 1845 "	8½	"		85
" 1848 "	2½	"		25

Now, during the first three years, the troops were exposed to the malarious influence of the paddy-fields, and were very badly housed. In 1845, their accommodation and position were much improved; and since that time, excellent barracks having been built, and great attention paid to drainage and ventilation, the sickness is not greater than that of a healthy station. At Kurrachí and Bellary, the same results have been produced, by increasing the accommodation and space in barracks. At both of these stations, it was proved beyond a doubt, that, where ten deaths were caused by cholera, a hundred might be attributed to over-crowding. The men, literally, were poisoned by an artificial pestilential atmosphere. This is totally separate from a bad locality; although, where both causes are combined, as at Secunderabad, death mows down its victims with two-fold power. At the latter station, which is the most unhealthy in the Madras presidency, the average mortality among the European troops, for fifteen years previous to 1846-47, has been 75 per 1,000—being nearly double the average of the entire presidency, and more than double the average of the more healthy stations. The men composing the regiment, are crowded into small barracks and narrow verandahs, while the officers

of the same regiment, and the detachment of artillery, who are quartered in more roomy barracks at no great distance, are comparatively healthy and free from disease.

Dr. Burke, the late Inspector-General, speaking of this station, says, "The excess of casualties in H. M. regiment at Secunderabad over that of any corps in the other stations of the presidency, during four years, is 117 men; a loss, therefore, intrinsically of that station, exclusive of officers, women and children. It has been stated that every European soldier landed in India, costs the state £100 sterling; calculating from which, the intrinsic loss of 117 European soldiers by Secunderabad in $4\frac{1}{4}$ years is £11,700 sterling. But, as these 117 men have to be replaced, the doing so will cost another £11,700;—to which must be added the loss in acclimatizing these latter, amounting on the lowest calculation to one-eighth, or £1,462; giving a sum total of £24,862, as the actual loss sustained in $4\frac{1}{4}$ years,* or probably as three lakhs of rupees in five years. But as Secunderabad would appear to have been a station for European troops for at least thirty years, the cost to the state for that period may be estimated at twelve lakhs at least."

So much for the value of fresh and pure air, as a mere question of finance;—but it has often struck us as one of the strangest anomalies, that it should be so little valued and appreciated, by all classes, and in every country and climate. Until the discovery of the circulation of the blood by the great Harvey, it was the universal opinion of both ancients and moderns, that air was the circulating fluid in our veins and arteries. It is too much the habit, in the present day, to fall into an opposite error, and to fancy that it never enters into our animal system at all; or at any rate to act, as if we had such an idea. Who is there, (however poor or straitened his circumstances may be) that would offer his fellow a dirty plate, or a cup of dirty water? A hair, a straw, a mere mote is carefully picked out, before we put the glass to our lips; and yet we, one and all, with strange inconsistency, think nothing of swallowing draughts of dirty air. The particles of dust, that we so carefully wipe from our mouth, or the minute substance, that we detect floating on the surface of our draught, and pause to remove, ere satisfying our thirst, are in themselves harmless; the infinitesimal speck of carbonized matter, that has haply fallen from the fire on our meat,

* We do not quite see the propriety of thus doubling the loss in $4\frac{1}{4}$ years. It would appear that the real pecuniary loss sustained is the expense of bringing out the men, who have died; or £11,700, with a per-centage added for the acclimatizing of the recruits, by whom their places are to be filled up.—ED.

raises our whole bile, though, in itself, literally wholesome; but poisonous fœtid air, that has been breathed over and over again, until it has become destructive to animal life, we inspire with the most stolid indifference.

A remarkable instance of the poisonous effects, resulting from over-crowding and want of air, is given by Dr. Mackinnon. It proves how the bad reputation of a station may be entirely owing to local causes (not natural or peculiar to the site), which might be easily removed or remedied. In speaking of Dinapore, he tells us, "that the European regiment quartered here, occupies two ranges of buildings extremely hot, confined and ill-ventilated. In May 1847, the 98th regiment lost sixty men: whilst there was *not one* death among the artillery, living within a few yards, but in better barracks."

What ventilation will do for the buildings, drainage and cleanliness will do for the locality; although it is too much the fashion in the present day to "run up" cantonments with every possible despatch, and pay no thought or attention to that great item, drainage. The barracks are built, the officers' bungalows finished, and large pits and hollows in every direction testify to the activity, if not to the prudence, of the architect. The ground thus becomes artificially lowered and sunk. During the dry weather, these excavations become the receptacles of refuse of every description, and after the rains, they are hot-beds of malaria. Those, who know what a large standing camp is in all its *minutiæ*, may do well to pause and consider what a large military station, with its sudder and regimental bazars, its commissariat establishment, hospitals and thousands of camp followers, must become, where no regular system of drainage is laid down and systematically carried out. We, too often, go on the principle of "every man his own doctor," and expect the station to drain itself.

A foreigner would feel no little surprise at the quiet easy way, in which, not only our military stations in this country are *chosen*, but also *abandoned*. While these sheets are being corrected for the press, we learn that the station of Ludiánah is "*done away with*," as the phrase goes. Now Ludiánah and Kurnál were once considered two of the very healthiest stations: but diet, stagnant water, and other removable causes, have, in each case, caused the loss of lakhs of rupees to the public, and much needless expense to individuals, who could ill afford it. At Kurnál, the European barracks were good, but badly placed—close to the canal, which was allowed to overflow and form marshes, in the rushes and grass of which, close to

cantonments, elephants even might have been lost. At Ludianah, the European barracks (except those of the artillery) were, and we believe still are, what is called "temporary," that is, capable of standing for two or three years, and intended to last until they tumble! The floors of the barracks at this station were *lower* than the surface of the ground. If we go a little further, we find the same farce being enacted at Lahore. Something in the shape of drainage had been commenced upon in the cantonment of Anarkulli, when it was determined to abandon it; but nothing was determined, in so vital a matter, for its substitute, Meanmír, which has perfect *seas* between it and the town of Lahore. Condemning a cantonment of only four years' existence, without first establishing a perfect system of drainage and cleaning, is like amputating a man's limb at the hip-joint, for the cure of corns on his feet.

At Peshawur, something is being done: as the gardens and irrigation, immediately surrounding it, were nuisances too flagrant to be winked at. Wuzirabad was built literally in a swamp; and the officers of the force stationed there had to swim, or go in boats to each other, last season; but at Sealkote, (the site selected instead), we are not aware that any thing is being done towards draining it.

These three cases are the more glaring, because sums of money, far beyond any thing ever before heard of, are being expended on "Palaces," thirty feet in height, giving nearly three times the number of cubic feet of space per man, hitherto considered necessary; while the soldiers are immediately condemned to live for years in ill-ventilated, or non-ventilated, buildings and hovels, that are, certainly, not half as good as the outer verandah of the said "palaces" will be, when they get them. Sixty, seventy and even eighty lakhs of rupees will be the respective sums required for erecting each of the new cantonments at Lahore, Sealkote and Peshawur—years* being required for their completion, and without any security or guarantee, that they will not possibly be condemned by some future Sir Charles, who may, peradventure, ride across the station, some wet morning in 1860, and find his boots wet!

At Kussofli and Subathu, the European barracks are not twelve feet high. They were ordered by Lord Ellenborough (as

* The cantonment of *Umballa* was built by Col. Napier of the Bengal Engineers in two years; and a force of 10,000 men was housed comfortably and commodiously. The station was drained simultaneously, as the earth was dug out for bricks, of which 250 lakhs were made.

an experiment) to be prepared without delay;* but, though temporary, ten years ago, they have not yet been replaced by others of a better description.

Such are the extremes we go into, when we would do well. The late Commander-in-Chief involved the Government in much needless expense, by rushing into impossibles, and insisting on non-essentials; so we do not wonder that the Governor General and the much abused Military Board should wince at every extra expense. But it is not even now too late to rectify the error: and we would suggest that, if no other means of supplying funds for draining, baths, ball-courts, gymnasia, and gardens, be available, the height of these monster barracks be reduced to twenty-four feet, and the inner space to 1,200 cubic feet per man.

We will here quote a remarkable instance of what may be done towards lessening the mortality of a station by draining; and it is not less an instructive example of the useful application of the labour of the soldier.† “Fort King George, in the island of Tobago, was at one time unhealthy; it is now, as appears by a comparative view of the sick returns of the army, one of the healthiest quarters in the Windward and Leeward island station. The means, through which it was made so, as not of common application, deserve to be brought under public notice. The fact is strong, but it has not made useful impression upon the official authorities. Fort St. George stood, in 1803, under the lee of a swamp, at a distance of nearly one mile, and at an elevation of 500 feet above the level of it. The exhalations, which arose from the swamp, carried to the height by strong currents of wind, were supposed to be injurious to the health of the garrison. The cause was obvious: and the effect was so destructive at one time, that the commanding officer of the Royal Scots regiment, which then formed the garrison, acting with the impulse of a soldier, determined to drain the swamp by the labour of the men, rather than allow them to be destroyed in detail, by its pernicious exhalations. The fact is authentic, and it is important. It furnishes unequivocal proof, that the European is not less capable of sustaining labour in tropical climates,

* It was generally understood, and we believe given out by Lord Ellenborough himself, that his object, in ordering these barracks to be “run up without delay,” was to prevent the possibility of their being objected to by the Court of Directors. It is possible that a similar reason actuated Sir Charles Napier, when he hurried on the foundations and walls of his monster-model barracks in the Punjab.

† “A view of the formation, discipline and economy of armies,” by Dr. Robert Jackson.

‘ even *severe field labour*, than the African; and it is further
 ‘ of value, as it shows that most of what relates to the
 ‘ quarters and accommodation of the military, may be effected
 ‘ by the military themselves, without expense to the public.
 ‘ The planters lent the tools in the present case; and the soldiers
 ‘ of the Royals drained the bog. They did it without reward,
 ‘ and without injury to their health. Fort King George is
 ‘ now a healthy station, and is rendered so by the ‘Royals.’
 ‘ Its future garrison may be supposed to bear a lasting sense of
 ‘ gratitude to the memory of Lt. Col. MacDonald, who con-
 ‘ ceived the feasibility of the undertaking from his own good
 ‘ sense, and executed it at his own responsibility.”

Though much may be done by the means here pointed out, it cannot be denied, that some of our military stations, such as Berhampore, Barrackpore, and Masulipatam, are decidedly unhealthy localities. The former, after a trial of seventy-seven years, and an expenditure of the enormous sum of sixteen millions eight hundred thousand pounds sterling (including capital and interest), was abandoned as a station for European troops by order of Lord William Bentinck, in 1835. The deaths, on an average taken for thirteen years, amounted to 103 in 1,000 men: so that, if to the cost of the buildings, which were unexceptionable, we add the intrinsic loss resulting from the destruction of life, we should arrive to a result of the most startling and fearful nature. Dr. R. Jackson was the first individual who pointed out to Government, the advantage of locating European troops in the interior and mountainous parts of the tropical islands: and “ since the adoption of the measure proposed by him of forming cantonments, on the mountain ranges, the diminution in the rates of sickness and mortality has been such as to justify the assertion, that if this measure had been adopted at the time it was first urged by him, the lives of from 8,000 to 12,000 men would have been saved;—a sufficient lesson, one would think, to our military authorities, not to *delay* the introduction of improvements, which experienced medical officers concur in urgently recommending.”*

In the East Indies, the same measure was advocated by Dr. J. R. Martin, and the plan, suggested by him, of calling on military surgeons for notices of the medical topography of the country generally, was adopted and ordered for the three presidencies in November 1845, by the direct act of the Government.

We confess that we see no grounds on which state policy can defend the retaining European troops at Fort William, Dum Dum, Dinapore, and Allahabad, when the range of the

* British and Foreign Medico Chirurgical Review, Vol. IX., January 1850, page 96.

Cossyah hills to the South, and the Himalayas to the North East, present such facilities for locating them in a climate adapted to their constitution; and where they would be a vigorous, hardily-trained body of troops, ready to take the field on any emergency, instead of being, as at present, corps of which full half the men are either young recruits, invalids, or sick. It has been proved by various returns, that out of every 1,000 British troops in Bengal, 129 men are constantly confined to hospital with sickness; and that for every individual soldier there are registered two attacks of illness in the year: and this, it must be remembered, is only the ratio taken as the average of the whole presidency, whereas, at particular stations, as Fort William, Chinsurah, and Dinapore, the number is much higher.

By a very interesting document lying before us, we learn that of one of H. M. regiments, which arrived in this country, eight years ago, there are now exactly 109 men left. One seventh part only are surviving, after a lapse of seven and half years. At this proportion a regiment would be decimated in a twelve month!

We give the details in the form of a Dr. and Cr. account; and only wish that similar returns were published yearly from every regiment:—

H. M. 98th Regiment, January, 1851.

Periods.	Ser-jeants	Drum-mers.	Rank & File
Strength of regiment on landing in China, July 1842	37	11	718
Deaths amongst this number, between that period and February 1844, a space of 18 months	11	4	417
Strength of regiment on arrival of the Depôt, February 1844	32	7	304
Strength of the Depôt Companies joining service, in 1844	11	5	630
Number of Recruits and Volunteers received between February 1844, and embarkation from Chusan for India, in July 1846, a period of two years and a half	"	1	258
Strength of regiment on landing at Calcutta, in November 1846	52	18	689
Recruits and Volunteers received since	1	0	644
Deaths, and Invalided since November 1846, up to 1st January 1850	29	7	403
Number of deaths between 17th February and 20th November 1849, a period of nine months (Not marching)	3	1	83
Number of men now effective who came out to China with the regiment in July 1842, a period of seven and half years	7	1	101

Abstract shewing the Increase and Decrease in H. M. 98th Regiment.

Increase in 7½ years.	Sergeants	Drummers	Rank & File	Decrease in 7½ years.	Sergeants	Drummers	Rank & File
Strength on landing . . .	37	11	718	Strength now present...	48	17	858
By joining of Dépôt . . .	11	5	630	By Death	71	12	1081
Recruits from England...	1	1	586	Invaliding	13	3	162
Volunteers	0	0	316				
Total...	49	17	2250	Total...	132	32	2101
Total Increase...1,550 men				Total loss by sickness...1,342			

The number of men, who have taken their discharge, &c., has been purposely omitted from this table, which shows the decrease, by sickness alone, to have been at the rate of 178 men yearly.

Now, this regiment has never enjoyed the advantages of a hill station. Had a certain proportion of the men, selected from amongst the most unhealthy, with due regard to their particular cases, been located for six months at Darjeling, while the regiment was at Dinapore in 1848, or immediately after the corps arrived from China, the result would have been very different. But we totally dissent from the plan on which our "sanatoria" are made use of at present. Instead of sending only the invalids of the season to Darjeling, Mussúri, or Kussowli—dragging the poor creatures, many in a state of great suffering and exhaustion, hundreds of miles for the purpose, and locating entire regiments at Dugshac and Subathu—we would earnestly advocate an equal enjoyment of the hill stations by each of the European regiments serving in the Presidency, by letting every corps, cavalry, artillery and infantry, benefit yearly by them to an equal extent as regards numbers, and for a similar period. Thus, if a detachment of from fifteen to twenty-five per cent. from every European corps were marched to the nearest hill station, so as to arrive in the early part of April, and all those not requiring a winter in the hills ordered to rejoin head quarters again in November or December, there could be no dissatisfaction felt on the point of interest or favouritism, and the greatest benefit would result to the greatest number. A seven months' residence in the hills is sufficient for most parties;—many get tired and "ennuyed" in half that

time; while to many, the climate is not only not beneficial, but positively injurious. To the larger bulk of a European regiment, if located in good barracks at an ordinarily healthy station in the Upper Provinces, a hill climate is by no means necessary. The men should be selected by the medical and commanding officers of each regiment, with reference to their state of health during the past year, as well as good conduct, and be accompanied by a relative proportion of their own officers, the detachment being commanded by a *selected* one. The only objection, that we have heard offered to this plan of letting *all* the European Regiments benefit to an equal degree yearly by our "sanatoria," is that the men would suffer in their drill, or fall off in discipline. With a good selected field-officer to command the dépôt, with a good dépôt-staff, and with each regimental detachment commanded by a selected officer, we do not see why there should be any falling off in discipline. The argument, if true, would tell both ways; for, if the men from some very "crack" corps did retrograde in their drill, others would improve. All commanding officers of regiments are not so strict, able and considerate, nor are all regimental systems so good, as that individuals and detachments might not even gain by removal for a time, to be placed under different men and different influences. But even admitting that there were temporary deterioration, and that the men returned to their regiments again a little slack in their parade duties, better this, than having to replace them by raw recruits; better that they should appear a little round-shouldered with the rudeness of health, than be stretched out on hospital cots, and carried about in a dying state in "doolies." Better, far better, to be in the hands of the drill serjeant than the doctor!

There is another, and, we suspect, more prevailing reason. Some commanding officers would rather have 1,000 pale-faced *Indians* in their ranks than 800 ruddy *Europeans*. Short-sighted and cruel policy! Neither the "*physique*" nor "*morale*" of the majority of Europeans will stand many consecutive years of exposure in the plains of India. Napoleon and other great commanders carefully watched the *morale* of their soldiers. It is too much neglected in India: and while every doctor will tell his subaltern or centurion neighbour, that he has been too long in India, and that he should go home and take a run on the Continent, or in the Highlands—how few think that European soldiers, with fewer comforts and more exposure, even when not positively prostrated by illness, require *their* change, and *their* stimulus. We are convinced that for ordinary times, and to meet daily wants, the system, we advocate, would save hundreds

of lives and lakhs of rupees: and we could shew that it might possibly save an army, nay even an empire. No one, who saw H. M. 44th regiment marching for Kabul in 1840, and had witnessed the landing of the same corps at Calcutta, less than twenty years before, but will understand our meaning. At Arracan, during the Burmese war, it was as fine a corps as any in the service; at Kabul, it was composed of pale-faced boys, many of them born in the country, and of broken down Indianized old men, who passed the greater part of the year in hospital. The *Morale* was as low as the *Physique*.

We must pass on, however, to points of special Hygiene, over which the European soldier has individually a personal controul. Upon this head Dr. Daniell remarks:—

“Could those causes of disease, which have been hitherto ascribed to climatorial alternations, be more thoroughly investigated, I apprehend, we should discover that no small number were founded on very inconclusive data. It is a well-known fact, that the notorious insalubrity of Africa has frequently served as the scape-goat, on which the blame of those evil consequences (resulting from the reprehensible indulgence of dissipated courses) might be unreservedly thrown, without the risk of their being disputed, or even questioned. When we seriously reflect on the impaired constitution of two thirds of the human beings who frequent these colonies, recklessly indifferent as to the price of life, we require no further argument for the rational explanation of those abnormal states of the system, that so largely swell the amount of victims in these occasional and almost inexplicable pestilences.”

Colonel Sykes is not less explicit:—“I have a strong conviction,” he says, “that much of European disease in India is traceable to over-stimulus; and that the mortality among the European troops will not be lessened, until the European soldier is improved in his habits; until he is made to understand that temperance is for the benefit of his body, libraries for the benefit of his mind, exercise for the benefit of his health, and Savings Banks for the benefit of his purse.”

The excessive use of spirituous liquors, according to the same authority, and according to all experience, is the great cause of sickness and mortality amongst our European troops. In analysing the comparative ratio of deaths between natives and British soldiers, occurring in the three presidencies, (table 1) three points strike us, as remarkable. “In the first place, the great contrast between the rate of mortality of the European and of the native troops, serving together, and exposed to the same morbid causes; secondly, the great difference

‘ between the mortality of the troops serving in the different presidencies; and thirdly, the circumstance, that in the Madras presidency, the rate of mortality is *highest* among the native troops, and *lowest* among the Europeans.”

On the first point, Colonel Sykes remarks;—“I will not say that the question is absolutely solved by the reply, “habits of life;” but I will say, reasoning from analogy, that the reply goes a great way to solve it. The European soldier in India is over-stimulated by food, over-stimulated by drink, and under-stimulated in mind and body. He eats a quantity of animal food every day of his life; he drinks a quantity of alcohol every day of his life, to the amount of a bottle of spirits in five days, two drams being served out to him daily; and he has not any mental, and little bodily, exercise. Happily, the pernicious practice has been recently discontinued; but time was, when the European soldier was compelled to take his dram by eight o’clock in the morning, with the thermometer varying from 70° to 90° or more, at different seasons of the year, leaving him in a state of nervous irritation and thirst, which could only be relieved, as he thought, by further potations; indeed, I have been assured within the last few days, by a pensioned artillery staff-serjeant, *who never drank in India, and was only in hospital five days during twenty-one years’ service*, that he has known, out of a detachment of 100 artillery men, no less than eight men in straight jackets at one time, absolutely mad from drink.”

“Now, animal food, with the assistance of such an auxiliary, and combined with mental vacuity, go far to account for the excess of mortality amongst Europeans.”

The question next arises, why the mortality of the European troops in the Madras presidency should be so much less than that of the others, being about *three fourths* that of the Bombay troops, and but little more than *half* that of the Bengal army. There do not seem to be any such differences in the climatorial diseases, or in the character of the military stations of the three presidencies as are by any means sufficient to account for this discrepancy; and if there were, we should expect them to manifest themselves alike in the native and in the European army.

“That the reverse is the case (for at Madras, the mortality among the native soldiers is the greatest, but the least among the Europeans) must be admitted to be a cogent argument, if not a complete proof, in favour of the insufficiency of any such account of the discrepancy.”

The following are the causes assigned by Colonel Sykes:—

“The *Bengal* European army has no supply of porter, but

is furnished with rum, a spirit not so wholesome as arrack. On the other hand, the *Madras* army consumes a large quantity of porter, and drinks comparatively little spirit; what it does consume being arrack. The *Bombay* troops have only recently commenced the consumption of porter, and the spirit they drink is understood to be more wholesome than rum, and less so than arrack. "These results," says Col. Sykes, are certainly not conclusive; but I cannot help associating the increased consumption of malt liquor by the *Madras* Europeans, with their comparative healthiness; and the gradations of the mortality in the *Bengal* and *Bombay* European troops, as partly influenced by the quality (no doubt, much more by the quantity) of the spirits they respectively consume.

"Now, on the other hand, the excess of mortality in the native army of *Madras* above that of the *Bengal* and *Bombay* troops, is equally attributable to a difference in the habits of the individuals composing it. Of the *Bombay* army, six-eighths consist of Hindus, and considerably more than half of the whole army are Hindustanis. These men never taste meat, fish, or spirituous liquors; but live, I may, from personal observation, venture to say, almost exclusively upon unleavened cakes of wheat, or other 'Cerealia,' baked upon an iron dish, and eaten as soon as cooked. The great majority of the *Bengal* army consists of a similar class of men. The *Madras* army in its constituents is the reverse of the other two. In the cavalry, there are from six to seven Mussulmans to one Hindu, and, in the infantry, there is one Mussulman to every $1\frac{1}{2}$ or $1\frac{3}{4}$ Hindus; but amongst the latter, there is a considerable number of low castes, without prejudices about food, and unrestrained by the prejudices of caste; therefore the majority of the native troops of the *Madras* army can eat and drink like Europeans.

"Thus then we see, that whereas in the *Madras* army, in which the European and native habits most closely assimilate, the mortality of the former is *less than double* (about thirty-eight to twenty-one) that of the latter; the mortality of the *Bengal* Europeans is *nearly six times* (about seventy-four to thirteen) that of the *Bombay* natives; the difference bearing such a relation to the greater abstemiousness of the native soldiery, and the larger consumption of spirits by the Europeans, that it is scarcely possible to avoid the inference that they must be connected in the relation of effect and cause."

Intemperance is, we have no doubt, the exciting cause of nine-tenths of the sickness and mortality amongst European troops in this country. Men may disguise the fact, pass over it as being delicate ground, or deny it altogether by saying,

"it is the climate;"—but the truth remains, "*If you drink, you die!*" If a man, walking on the edge of a precipice, were to act, as if he were in the middle of a grassy plain, and by his own folly were to fall to the bottom of the abyss, no one would say that the precipice killed him; but in India, the *climate*, the *heat*, the *sun*, are the ready scape-goats for man's insane actions.

Two remarkable paragraphs in the public journals, lying before us at the present moment, speak volumes, as to the results of temperance, or the reverse.

"The *Bombay Telegraph* contains some interesting statistics, collected by Dr. W. B. Carpenter, on the longevity of the few private soldiers in the Indian service, who adhere to the principle of temperance, as compared with the great majority, who indulge in the free use of spirituous liquors. In the year 1838, the daily average number of Europeans in hospital, who were members of the Temperance Society, was only 3.65 per cent., while the average of the remainder was 10.20 per cent., or nearly three times as great. In the Cameronian regiment, of which a large proportion became converts to the temperance principle, the number of gallons of spirits diminished from 14,000 gallons a year to 2,516: and in 1838, the amount consumed was 8,242 gallons *less* than the regiment was entitled to draw. The general average for the year 1838 above given, is instructive, as it clearly demonstrates the evil effects of ardent spirits on the frame of the European soldier; and the details of the Cameronian regiment are conclusive, as to the possibility of a regiment maintaining alike its discipline, and its carriage in the field, without the stimulant of large quantities of alcohol."—*Friend of India*, 18th July, 1850.

The second paragraph, that attracts our eye, is an account in one of the *Bombay Journals*, of a funeral monument erected to the memory of 415 soldiers, women, and children, of the 78th Highlanders, who died in one year in Scinde. It was this fearful mortality, that gave rise to so much discussion, from the sensation that it created at the time, and which has been lately revived in some degree from the part that the late Commander-in-Chief, Sir Charles Napier, took in the matter—he being at that time the supreme military authority in Scinde.

It would answer no good purpose to open up the question again, as to the immediate or remote cause of the extraordinary loss of life on that occasion; but, whether it was intemperance on the part of the men, or improvidence and want of judgment on the part of those who ordered them to march in the month of September, still the fact remains the same—recording a loss of life from exposure, which is, we believe, without a parallel.

Returning to our subject, we next make a long extract from the British and Foreign Medico-Chirurgical Review, as testifying not only most favourably, as to the state of H. M. 84th Regiment, but being itself most valuable and suggestive.

The Reviewer (at page 92) says :—

“ Having learned that the 84th regiment of H. M. Foot has, for some time, enjoyed the reputation of being one of the most temperate and best conducted regiments in the European portion of the Indian army, we have consulted the army medical returns, for the purpose of ascertaining, whether its rate of mortality has differed in any marked degree, from the average given above; more especially, since it has been quartered at Secunderabad, which (as we have seen) lies under the bad repute of being one of the most unhealthy stations in the Madras presidency. In the year 1846-7, the average strength of H. M. troops, in the Madras presidency, was 5,963, and the number of deaths was 251, or 4.21 per cent., which is rather above the average mortality in this presidency, as calculated by Colonel Sykes. During the first eight months of this period, the 84th regiment was quartered at Fort St. George, Madras, which is considered a healthy station; it then performed a march of between four and five hundred miles to Secunderabad, in an unusually wet season—the roads (such as they were) being in some parts knee-deep in water; and it took up its quarters at Secunderabad, about two months previously to the date of the medical return (April 1st, 1847).

“ The return of the regiment for this year presents us with the almost unprecedentedly low number of thirteen deaths on an average strength of 1,072 men; the mortality being thus at the rate of only 1.21 per cent. Now, during the same period, the 63rd regiment, which was quartered at Secunderabad up to February 1st, 1847, (or nine months out of the twelve) lost seventy-three men, which was at the rate of 7.88 per cent. for the entire year; whilst the mortality for *all the other* stations in the Madras command was only 3.02 per cent. for the same year. Hence we see, that the mortality of the 84th regiment for the year 1846-7, was only *two-fifths* of that of the average of the *healthier* stations in the Madras presidency, which average its own very low rate contributed to reduce.

“ During the year 1847-8, the total mortality in the Madras presidency was 227 to 6,040 of average strength, or 3.76 per cent: but this reduction, from the preceding year, was not due to any considerable difference in the rate of mortality at the other stations, being almost entirely consequent upon the diminution in the number of deaths at Secunderabad. For the 84th regiment, which remained at that station during the

' whole year, lost in that time, no more than thirty-nine men,
 ' out of an average strength of 1,139, so that its percentage
 ' of mortality was only 3.42; which was below the general aver-
 ' age of the presidency, and *less than half* the average rate
 ' at Secunderabad for fifteen years previously. It seems
 ' impossible to attribute these remarkable results to any
 ' thing but the abstinent habits of the soldiers of this regi-
 ' ment; a large proportion of them being total "abstainers,"
 ' and those, who were not so, being *very moderate* in their
 ' consumption of alcoholic liquors. The influence of the sys-
 ' tem upon their moral health has been no less favorable than
 ' upon their physical. During the year 1846-47, as we learn
 ' from the surgeon's report, there was but a single court-mar-
 ' tial in the entire regiment. On the march to Secunderabad,
 ' which occupied forty-seven days, there was not a single pri-
 ' soner for drunkenness; the officers were surprised to find that
 ' the men marched far better, and with fewer stragglers than
 ' they had ever before known; and it was noticed by eve-
 ' ry one, that the men were unusually cheerful and contented.
 ' What a heavy responsibility have our military authorities
 ' taken upon themselves, in ordering the discontinuance of
 ' Temperance Societies in the army! We have been inform-
 ' ed by a regimental surgeon, recently arrived from India,
 ' that within *one month* after the promulgation of this order,
 ' he had *forty* cases of 'delirium tremens' under his care.
 ' The reason assigned for this measure we understand to be
 ' that nothing like an '*imperium in imperio*' can be permitted
 ' in the army—its systematic organization for military purposes
 ' being (it is considered) interfered with by any other, however
 ' good its design, and however beneficial its effects. We can-
 ' not imagine that the Commander-in-Chief, when he issued
 ' such an order, can have given his attention to the subject, or he
 ' would have seen from such returns, as those we have adduced,
 ' how greatly temperance is to the advantage of military subor-
 ' dination, as well as to the health and general welfare of the
 ' troops. The difficulty would be got over with the greatest
 ' facility, if the officers of the regiment would become the of-
 ' ficers of its Temperance Society, as we understand to have
 ' been the case in the 84th. There would then be no ground
 ' whatever for the apprehension, that the organization of the
 ' Temperance Society could, in any way, interfere with that of
 ' the regiment, and the example of the officers could not but
 ' have the most beneficial effect upon the men, as was abun-
 ' dantly proved in the case just referred to.

" But even if this be not thought practicable, we would
 ' strongly urge (with Dr. Mackinnon) that the use of *beer*
 ' should be substituted as much as possible for that of *spirits*;

every thing is in favor of such a measure. It is well-known that, since the introduction of bitter ale, as the ordinary beverage at the officers' mess table, in place of wine and spirits, the longevity of the officers in the Indian service has so greatly increased, that promotion is no longer expected to be more rapid in that part of the army than in any other. The thing has been already done for the soldiery, to a great extent, in the Madras army, and more partially in the Bombay force; why should it not, we ask, in Bengal?—since there can be no greater practical difficulty in that presidency than has been already overcome in the others. A fact, mentioned by Dr. Mackinnon, tells strongly in favor of the advantages, which might be expected from such a change, as well as in favour of exercise in the open air, as conducive to health. The Indigo-planters at Tírhút, he tells us, lead active lives, enjoy the comforts of good country-houses and generous wholesome diet; but, on the other hand, they are subject to much exposure; and the district cannot be regarded as very favourable to health, since, although comparatively cool, well clad with vegetation, and free from jungle, there are many lagoons or old beds of rivers, and extensive rice-jhíls, full of water in the rains, but drying up more or less completely by evaporation. 'For Natives,' say Dr. Mackinnon, 'I do not believe there are many parts of India more unhealthy. But the appearance of the Indigo-planters is that of rude, robust health, very different from that of the Civil Servants residing at the stations in the same district. Many of them are generous livers, as to the luxuries of the table; but as to drink, beer is their favourite beverage—the slightest excess in spirits being always found prejudicial, and a free indulgence, fatal after a time.' The European male population, during the ten years that Dr. Mackinnon resided among them, amounted to an average of 130; and during this period, no more than nineteen deaths occurred among them, which is at the rate of only 1.46 per cent. per annum; and several of these deaths were brought about by diseases, which might probably be attributed to habitual excess in diet, and which would be less likely to occur, if even the moderate stimulus of beer, with that of high seasoned cookery, were dispensed with."

In the concluding paragraph we most cordially agree, and we think that the true solution of the problem lies not in the consumption of beer, but in the avoidance of spirituous liquors, and the advantage of daily exercise in the open air; while the mind is at the same time occupied, not in a business, forced and distasteful, but in pursuits, which embrace both interest and recreation. How widely does this picture differ from that of the European soldier in India!

Another point on which very much of our sickness depends, viz., want of pure and wholesome water, is deserving of special notice.

“It is not to be expected that the habit of water-drinking should become more prevalent among our Indian army, unless good water be provided. We gather from various passages in Dr. Mackinnon’s work, that very little attention is usually paid to this point. It is sometimes raised from wells, and kept in large earthen jars for use; in other instances, it is obtained from tanks, in which rain water is collected. In both cases, however, it almost invariably contains a large impregnation of vegetable and animal matter; so that it very speedily becomes fetid. A very slight degree of trouble is sufficient to correct this evil, at an almost nominal expense; the remedy being simply to keep the reservoirs clean, and to boil the water, and filter it through charcoal. Of the pernicious effects of the habitual use of foul water, there cannot be the least doubt, either theoretically or practically; for whilst theory would show that the continual introduction of putrescent matter into the system, in however small a quantity, must predispose it to be acted on by other morbid causes, even if it do not itself become the exciting cause of diseases, experience demonstrates, that epidemics most prevail where the water-supply is the worst.”

To aggravate all this, the European soldier has animal food, consisting invariably of the same kind, viz., beef eaten twice a day, washed down by draughts of new rum, or bad water, for 365 days in the year without change or variety; and this too, in a tropical climate, without bodily exercise, or mental occupation! Utterly opposed to this is the plan laid down by our great military writer, Dr. R. Jackson.

He says, speaking of abstinence and exercise;—

“The case has been tried, and it has been proved on many occasions, that persons, who live abstemiously, and live chiefly on vegetable and farinaceous foods, which furnish nutriment of a less irritating quality than animal matter, not only escape sickness in tropical climates, but preserve their health in vigour and activity; while those, who live freely and fare sumptuously, die in great numbers. This has been frequently seen in time of war, in the example of prisoners, who, furnished with a measured ration, especially a farinaceous one, chiefly bread and rice, rarely experience sickness.

“Occupation of mind and body, implying exercise to an extent sufficient to act with impression upon animal structure, is preventive of disease, particularly among Europeans in tropical climates. This opinion receives proof and illustration from the example of planters, who are obliged to spend

‘ the greater part of the day in the sun, superintending the field labors of the slave. This class of people, in the West Indies, may be said to work hard. When actively employed, they are little liable to illness: while soldiers, confined the greater part of their time to barracks, supinely passing their hours in a state of indolence and ease, suffer severely: but soldiers are vigorous and healthy under activity of military service, even in tropical climates—and this without regard to season.”

A direct and well authenticated proof of the value of exercise, nay, even of hard labour, exists in the example of French soldiers in the Island of St. Domingo, previous to the revolution of 1789. These soldiers, Europeans and Natives of France, were employed at that time in forming the great roads and aqueducts, which convey water through the plains for the purpose of irrigating the plantations. They consequently worked in the sun the whole day long, as labourers work in Europe. They sweated and toiled, and were so tanned in colour as scarcely to be distinguished from the Mulattoes. They were brown in colour, it is true, but, it rests on good authority, that they experienced little sickness, while employed in this manner; when confined to the towns, however, and disposed at ease, or idling, and rioting, they suffered sickness, and died in large numbers, like the soldiers of other nations.

We do not advocate the necessity or even advisableness of hard labour; much less that of forced labour. We consider that out-of-doors employment, in which the mind is occupied and interested, furnishes the best safeguard against disease among our European troops in this country. Let the occupation be what it may, still it should harmonize with the taste, or be conducive to the interest of the individual. Put a European on a dusty road, with a musket in his hand, and give the order to march ten miles into cantonments—he looks upon it as an irksome duty, and, from having nothing to break the monotony of the task, the depressing powers of the mind are at work, and he is reported ill on its completion. But change the musket for a fowling-piece; let the pace be uncontrolled, and the direction left to his own choice—he will walk double the distance with a very different result, going over much more difficult ground, and with much more exposure to the sun. Try the experiment in a hundred different ways, the same conclusion will be arrived at in all. We all know that an hour’s gallop on horseback under a burning noon-day-sun, or through the hot wind, is much less exhausting than half the time spent in the saddle at a walking-pace only; and that a game of cricket, played while the thermometer stands at 80°, is felt to be

less fatiguing than a morning parade, in which there is neither violent exertion, nor a high temperature to be endured.

On the marking out of a new cantonment in this country, officers are observed spending their entire day in the open air, watching or superintending the erection of their bungalows, staking out their gardens, planting trees, &c., with almost the same indifference to heat and sun, as if they were in England, and in the enjoyment of better health, sounder sleep, and greater appetite, than when living in their residence with all the comforts and luxuries that art can supply to mitigate the "desagremens" of an Indian climate. And, as with the European officer, so it is with the private soldier. The longest marches on record, and under the greatest exposure to heat of weather, have been made by British troops, without any injury to the health. The change of scene, the interest excited by every rumour that finds its way to the camp, the speculation on coming events, all act as powerful stimulants in counteracting the *otherwise* injurious effects of excessive fatigue and exposure.

And here we think, that Government has not done enough for the European soldier serving in India. In laying out every new cantonment, we would wish to see the "Gymnasium" commenced as soon as the "parade ground;" the cricket-field ordered as well as the "Conjee-house"; the "soldiers' garden" sanctioned as much as the canteen.

It will be a glory to the Marquis of Dalhousie to establish such a system, and to leave behind him, at every station, the means of innocent recreation and exercise to the soldier, European and native. In one station in the Upper Provinces, viz., Lahore, this has been done through the generous exertions of a single individual—Sir Henry Lawrence. A large space of ground, containing several acres, has been laid out strictly as a "soldier's garden;" there are shady walks, "parterres" of flowers, a cricket-field, swimming bath, Gymnasium, Ball-and-Racket-courts, work-shops, skittle-grounds, and a reading room and library; while the beverage, "that cheers, but not inebriates," is retailed at a very low rate on the grounds, to the exclusion of all spirituous liquors.

This, we believe, is the only instance of the kind in India; but we venture to predict that it will be taken as the model for similar establishments, as soon as the truth becomes apparent, that, in order to preserve our European soldiers in good health, and prevent the slow but certain diseases produced by drink, indolence, and dissipation, we must provide something else beyond the parade ground and canteen.

From a list that has been placed at our disposal, we find that one of H. M.'s cavalry regiments, at present serving in India, is composed as follows. The multitude of trades is very great, and the proportion of labourers to artisans and mechanics is about one-fifth of the whole:—

TRADE	NO.	TRADE.	NO.
Apothecaries	3	Labourers	126
Appraisers	1	Leather dressers	2
Brick-layers	12	Miners	1
Button-makers	1	Masons	10
Brush-makers	3	Musicians	2
Bakers	17	Maltsters	1
Butchers	17	Mercers	1
Carpenters	20	Mill-Stone-makers	1
Colour-mixers	2	Opticians	1
Chemists	1	Porters	3
Cotton-spinners	1	Printers	9
Curriers	2	Plumbers	1
Compositors	1	Painters	7
Corrector of the Press	1	Paper-makers	2
Confectioners	1	Plasterers	4
Clerks	41	Poulterers	2
Coopers	2	Pewterers	2
Cabinet-makers	3	Paper stainers	2
Coal-meters	1	Pocket Book-Makers	1
Carpet-layers	2	Rug-makers	1
Carver and Gilders	3	Rope-makers	1
Cigar-makers	2	Shoeing-Smiths	2
Cloth-dressers	1	Sugar-bakers	1
Cooks	3	Spindle-makers	1
Drapers	7	Shoe-makers	23
Dyers	2	Servants	40
Edge-Tool-makers	1	Sawyers	4
Engineers	1	Smiths	10
Engine-Fitters	1	Silver-Smiths	4
Farriers	16	Saddlers	8
Flax-Spinners	1	Stationers	1
Fishermen	2	Tailors	24
Founders	3	Tanners	6
Farmers	1	Turners	2
Gas-Fitters	3	Tin Plate-workers	1
Grooms	27	Upholsterers	1
Gun-Smiths	1	Watch-makers	2
Gardeners	2	Weavers	6
Gilt-Toy-makers	1	Wheel wright	1
Grocers	1	Wool-comber	1
Harness-makers	3		
Hatters	2		646
Hair dressers	1	No previous occupation...	8
Joiners	4		
Jewellers	3	Total...	654
Land Surveyors	4		

What must have been the amount, paid in premiums and apprentice-fees, by the parents of these 646 artisans? And what would it cost Government to obtain the services of a like body of mechanics for the purpose of completing a railroad in the Upper-Provinces, with all its various requirements of machinery, carriages, station-telegraph, &c.? Why should the benefit of these men's early education be lost to the state, as well as to themselves, when we have them on the spot? How much might have been done by the soldiers themselves, during the last two years, at Lahore, Wuzirabad and Peshawur, towards the completion of their own barracks, with positive advantage to all, not only as regards pecuniary emolument, but the much higher points of health and life! On board ship, the European private helps to work the vessel by order of his Commanding Officer, and takes a pull at the "*main brace*" with a hearty good will. On the march he pitches his own tent, or constructs a raft for crossing streams, without being considered to suffer either in character or discipline. It is only in cantonment that he is taught to be a mere marching machine—a parade automaton. Some of the men, in the regiment alluded to it is true, do obtain an addition to their pay by working at their original trades, between the hours of parade and roll-call: and the money, thus gained by their own manual labour, is more likely to be accumulated towards purchasing their discharge or deposited in a Savings Bank, than any surplus derivable from their pay, or "*dry batta*," which, by a recent excellent order of Government, is allowed to be disbursed daily at the "*grog-tub*," to all who prefer receiving money to rum.

The expense, however, of each individual's providing his own tools is a serious impediment to the men working at their old trades. This difficulty would be removed, if the officers of each corps would establish and encourage regimental workshops, where, by the division of labour, much larger profits would be accumulated, and the expense of materials and implements could be defrayed by a per centage on the price received for the manufacture.

Half-a-dozen good coachmakers and wheelwrights, who might be found in most European regiments, ought to be able, in a few weeks, to build a buggy that would realize some five or six hundred rupees, if well finished and substantially put together. So with boat-building, cabinet-making, engraving, painting, book-binding, and many other trades—the men would find a ready market for the manufactured articles, especially in the Upper Provinces, where the residents of a station are cut off from the advantages derived by living near Calcutta, Delhi, or Agra.

From a series of Papers, entitled *European soldiers in India*, which appeared in the *Bengal Hurharu*, during last year, we make the following extract, which touches upon this part of our subject. The writer, who is evidently practically acquainted with the question he discusses, points out, that the experiments, hitherto made for providing occupation for the European soldier in India, have failed, simply from the fact that sufficient attention has not been paid in the first instance to the different habits, tastes, and pursuits of different individuals, and that recreation ceases to be such, if forced. It then becomes, in fact, only another kind of drill.

"Many persons," says he, "who have written in recommendation of certain modes of recreation for European soldiers in India, have simply urged those recreations, which they found most congenial to their own temperaments. Some have urged manual labour and employment, either in gardens, or workshops; some recommend athletic games and field sports, calling into activity all the muscular powers of the body. Some, on the other hand, look more to mental recreations, and recommend theatrical amusements, or musical entertainments of a somewhat similar kind. Some go further still, and, being of a more sober turn, recommend branch libraries and reading clubs, chess, &c. It is seldom, however, that the advocates of any, or all of these various means of recreations, consider that, according to the old proverb, "it is all a matter of taste:" and, as different men are of different opinions, so unless the soldier himself inclines to the species of amusement proposed for him, it is to him not a recreation, but a toil. You cannot make a man love to dig in a garden, or find recreation therein, by putting a spade in his hand, and preaching to him of the value of horticultural pursuits! He may like greens and potatoes well enough, when served up at table; but he may think the labour of procuring them by delving far too great a toil, and thus would rather employ his leisure hours differently, and purchase all his greens in the market. We illustrated this, the other day, by observing that some men might like carpentry-work;—but that for ourselves, especially in warm weather, such as it is at present, we preferred some less heating employment than sawing a two inch plank. Thus it is with all other occupations; the man, who loves the one, will often detest the other. The only method that appears to us divested of innumerable objections, is to leave the soldiers, as much as possible, to their own liberty of choice. Let them take such recreation, as they feel disposed to take, and when and how they like. To do this, they must

‘ have some leisure time allowed them : and their time should
‘ not be cut up with what can never conduce to the good of
‘ service, but must weary every sensible soldier to death ;—we
‘ allude to the endless drills and parades, and all the little ob-
‘ servances of military life, devised more for the purpose of
‘ keeping the men employed, than of instructing them in any
‘ branch of their profession. When officers or soldiers are not
‘ required for actual duty, let them have as much liberty as
‘ possible. Soldiers are treated far too much as children ; treat
‘ them as grown-up men, and they will behave as such. Let
‘ them have every facility for the lawful exercise of all their
‘ talents and mental or bodily powers. Let them, if acquaint-
‘ ed with handicraft trades, pursue those trades, if they feel
‘ inclined to do so, and whenever they are able. Let them,
‘ if fond of gardening, garden ; or if fond of acting, let them
‘ rehearse plays ; if fond of reading, let them read ; but
‘ let them not be driven to any of these so called recrea-
‘ tions, as to a task, because some few of them may chance
‘ to like it. We would always advocate freedom of action,
‘ as far as is consistent with the exigencies of the state. We
‘ would make all officers and soldiers, when on duty, do their
‘ duty ;—and let them, when not on duty, do in all respects
‘ what any other man may do. We might carry out this ar-
‘ gument very much further, but that we fear the time has not
‘ yet come for it. We doubt even, whether we carry with
‘ us, as far as we have now ventured, the favourable opinion of
‘ many of our military readers ; but we feel convinced that,
‘ till soldiers are treated more as human beings, and less
‘ as military puppets, drunkenness and all its train of at-
‘ tendant evils will not be put down. How are we in
‘ India to get rid of the monotony that hangs over Indian
‘ life, and in particular, Indian barrack life, which saps the
‘ energy and spirit of the bravest and most enterprising
‘ men ? When the monotony of the daily drill is added to this,
‘ who can be surprised at the results evolved by it ? Some men
‘ are constitutionally formed to like this kind of monotonous
‘ existence. We feel that this must be the case ; for otherwise the
‘ military advocate for the eternal round of puppet-show parade,
‘ would not be able to point to some model men in his estima-
‘ tion, whose souls are moulded on the pattern of a parade ground,
‘ and who never felt dull care in all their lives. The reason
‘ is plain, that these few exceptions to the rule are in their
‘ proper element ; their mental faculties, such as they are, are in
‘ full occupation ; and healthful exercise they have sufficient of ;
‘ such men are thus placed in the situations physically best

‘ adapted to them. But, neither mentally nor morally, are these
 ‘ men better than their more mercurial companions, who pine
 ‘ for what they are denied, and, in their idle hours of irksome-
 ‘ ness, seek the solace of strong liquors, to the prejudice of dis-
 ‘ cipline and order, and the injury and ruin of their health.
 ‘ Man, whether in the upper or lower walks of life, must, to
 ‘ enjoy happiness, have the means of exercising such mental
 ‘ and bodily functions, as he is endowed with. This is the true
 ‘ philosophy of life; and, without this liberty of action, all other
 ‘ things are positive sources of pain and misery to us. When
 ‘ ignorant men are checked in the natural exercise of their
 ‘ bodily or mental powers, they seek for the means of gratify-
 ‘ ing their lower propensities or appetites; and, liquor being
 ‘ universally cheap in India, it is readily procured by them to
 ‘ their own destruction. Nor are vile and worthless characters
 ‘ wanting to aid the tempter’s work and to stimulate a crav-
 ‘ ing for liquor, in order that they may thereby reap an
 ‘ unhallowed harvest by the illicit sale of the poisonous com-
 ‘ pound.”*

Where it is impossible to provide out-of-doors employment and recreation, all the year round, from the want of proper shelter, afforded by trees, or by the shady side of a high wall or building, it would at least be practicable during the cold season, from October to March, at all stations. We cannot see why European soldiers might not spend their leisure time in (for instance) laying out a public garden, with carriage drives *round*, but not *through*, it;—a work, which would be a lasting benefit to the station, and might be well pointed out to succeeding corps, to serve as a stimulus for further industry and enterprise, in improving upon the original plan. We would, however, go even further than this. We think that, if a Railroad were in the course of being constructed within a reasonable distance of any of our large military stations, at which European soldiers are located, a very large number of volunteers would be found in every regiment, who would feel it a privilege to be allowed to shoulder a pickaxe or spade, and assist in throwing up the embankments of a great national undertaking, that may, in after years, be a far more glorious military monument of what had been achieved by the British soldier in India, than all that has been engraved on marble urn, or mural tablet. A horde of Goths and barbarians may invade and *conquer* a country, but it is only a civilized nation that can *improve* it; and the first great step

is the opening out of its resources, and making communication perfect, by means of roads, canals, and navigable rivers.

But, until these truths can be impressed upon the minds of those, who have the power and authority to act in remodelling our present defective system of maintaining a gigantic peace-army in idleness and sloth, we must be content to be looked upon as visionaries, and to hear our plan ridiculed as Utopian and impossible. Without the co-operation of the officers of a regiment, we well know that we are undertaking the labour of Sisyphus: and that any scheme—whether for the improvement of the men, or the education of their children—whether it be to procure health or recreation—to establish a “soldier’s garden” or regimental work-shops—will necessarily fall to the ground, if the commandant and his officers take no interest in the matter. It cannot be expected that the men will take the initiative, if ridicule and satire from their superiors are to be brought to bear against them. The French have long set us an example in this matter well worthy of imitation: and Napoleon’s opinion of the value of his corps of Pioneers and Sappers was never lessened, or detracted from, by any of the most brilliant deeds of “the old guard.”

In the native army of this country, where there is all the difficulty of caste and prejudice to be overcome, we find sepoy of as high caste, and as well disposed to fight, in the ranks of the “Sappers* and Miners,” as in any other regiment of the line. These men will “pile arms,” and commence trundling a wheel-barrow, or digging a trench, without feeling that, on that account, they are in the slightest degree less efficient as soldiers, or less honoured by their brothers and relatives in other regiments. And so with our Europeans;—we would by all means scout the idea, that the men of Worcestershire and Kent, the sturdy Hibernian, and long enduring Scot, are only called upon to handle the spade, while engaged in the trenches before an enemy’s fort. Why should field-labour, in which hundreds of our troops have been engaged up to the hour of their enlisting, and the value of which is so universally admitted and felt in all military operations, be no longer practised, because “pipe-clay and drill, say—No?” The miscellaneous duties, that our British sailors are called upon to perform, and *do* perform with alacrity and good will, have never proved an impediment to rigid discipline, on the one hand, or efficient manœuvring of their ships on the other; and yet the Nile and Trafalgar

* We have seen a company of that splendid corps, with thirty-five Brahmins in its ranks, working at a road with hearty good will.

stand out as brightly on the page of history as Waterloo or Badajoz.

We are glad to see this subject taken up in an earnest manner by an officer of many years standing in the service, Lieut. Colonel J. S. Hodgson, of the 12th Bengal N. I., who has recently given to the world, a small pamphlet under the title of *Military Musings*. Many of the author's data and suggestions are the fruits of actual experience during his residence in India ; and, from his knowledge how soldiers may be led and governed by energetic men, who will set the example, as well as give the order, his arguments in favour of "Camps of Exercise" being formed every successive cold season, are entitled to more than a mere passing notice. We are convinced that, as a sanatory measure alone, the experiment would be attended with great benefit ; and we hope to see it fairly and fully tried. But we shall let Colonel Hodgson speak for himself ;—

"That apathy, which characterises the British subject in India, were it the national trait, would speedily bring Great Britain, now the foremost nation of the world, into the same scale with Spain and Portugal.

"The endurance of military toil, in all its forms, is comprehended in a soldier's duties. He should be accustomed to do all those things, which appertain to military service, in tropical, as well as in temperate, climates. His physical capacities are not unequal to their performance. This is a fact which experience has well authenticated.

"The plan of military labour is intended to apply equally to the European soldier : for it would be invidious, and unjust in the extreme, to exempt him from those military toils exacted from the native soldiers.

"The time of the European soldier in India is not sufficiently employed. The numberless courts martial amply substantiate this fact. The crimes are those attendant upon his over-feeding, and almost listless state of existence. Both his mind and his body are left comparatively without exercise. The common drudgeries of the service are all performed by "sepahis." The European soldier is kept in such luxurious indolence, that it merely requires the addition of a palanquin to each soldier's stock of necessities, to render the picture graphic and complete. In the West Indies, far more work is exacted of him, to the vast improvement of his health and character. British seamen work with equal moral and physical energy in tropical harbours, as in those of more temperate latitudes : and the value of such labour and exercise is perceptible in their preservation of health, and cheerful spirits, with a pro-

‘ portionate absence of crime. The exhaustion in India is
 ‘ more a mental, than a physical, prostration: and both are
 ‘ quite susceptible of vigorous preservation by a judicious use
 ‘ of those faculties, which nature has bestowed on man.

‘ “Many of the early campaigns of the Indian army were
 ‘ made in the rains and hot months; and yet the troops, both
 ‘ European and Native, kept their health in a remarkable
 ‘ degree. Sickness was almost unknown; the soldiers had not
 ‘ time to be sick. The battle of Plassey was fought in June:
 ‘ the campaign in Guzerat, extending over a period of six
 ‘ years, was carried on during all seasons of the year: the same
 ‘ may be said of the Mysore campaign from 1790 to 1793.

‘ “Serlingapatam was carried by assault in the month of May.
 ‘ The campaign of 1813, against the Mahrattas, opened in the
 ‘ rainy season, and continued throughout, with the most bril-
 ‘ liant results. The campaign in Java (1811) was carried on
 ‘ with success during the most unhealthy season of the year.
 ‘ These facts, together with a variety of others all equally well
 ‘ authenticated, are conclusive that, so long as the mind and
 ‘ body are kept actively employed, there exists every reasonable
 ‘ hope of the general health of soldiers continuing good and
 ‘ undisturbed—though exposed to all the dangers of a tropical
 ‘ climate during the most inclement seasons of the year. It is
 ‘ more than probable, that the troops, which served in the above
 ‘ enumerated campaigns, would have experienced a far greater
 ‘ mortality, had they been subjected to the slothful effects of a
 ‘ cantonment or barrack life, than they did from actual con-
 ‘ flict with the enemy in the field. Greater objection is anti-
 ‘ cipated by the author to his plan from the European than
 ‘ from the Native. The realization of such objects must un-
 ‘ questionably entail personal trouble; and personal trouble is
 ‘ abhorrent to an extent in this country, which would, if more
 ‘ generally known, excite the derision of our fellow subjects
 ‘ in Europe.

‘ “There is but a very small portion of energy exerted in
 ‘ resisting the enfeebling effects of *example*—the writer will not
 ‘ say, *climate*; for he believes that a trifling amount of mental
 ‘ vigour, only properly brought to bear, is always sufficient to
 ‘ modify, if not ward off, its stealthy approach.

‘ “Common sense cannot acquiesce in the assumption of an
 ‘ impracticability, where no attempt is made to ascertain its
 ‘ feasibility. The exclamation of “what a bore!” appears to be
 ‘ the general anathema, whenever duty is required. Perhaps
 ‘ there is no army, in which less duty is exacted of its officers,
 ‘ than from those of the Native regiments of the Indian army.

“ This system of military labour in time of peace can only be put into energetic and effective train by the cordial zeal and patriotism of the European Officers. Its adoption will give a noble impulse to the native soldier; tend, by the diffusion of a patriotic motive, to strengthen and secure the British Empire in the East; and redound to the imperishable honor of the native army of India. Surely these are momentous national considerations, not unworthy the ambition of British officers.

“ In carrying out a system of military labour, distinct camps of exercise might be formed, and separate portions of work allotted to the different divisions, to be effected under the scientific supervision of the proper officers. By this arrangement, a spirit of ardour and emulation would obviously be excited and fostered.”

We are fully aware that there would be an outcry raised at first on the bare mention of European soldiers working in a tropical climate. There would be a cry of “ *coolies*,” “ *slaves*,” “ *convicts* :” but the outcry would come from those, who have either paid the subject of the “ mortality of our troops in India,” no attention, or who, from ignorance and prejudice, look upon the very idea of change or improvement, as embodying something revolutionary and destructive. To such we would beg to quote the words of one, whose writings will probably outlive those of most of his co-temporaries, and whose energy and perseverance enabled him to overcome all opposition, because his heart was in the work. Dr. Arnold says :—

“ There is nothing so revolutionary, because there is nothing so unnatural and so convulsive to society, as the strain to keep things *fixed*, when all the world is, by the very law of its creation, in eternal *progress* ; and the cause of all the evils in the world may be traced to that natural, but most deadly error of human indolence and corruption—that our business is to *preserve*, and not to *improve*. It is the ruin of us all alike, individuals, schools, and nations.”

From the returns of six of H. M. regiments, serving in the same presidency, who have arrived in this country within the last eight years, we find that the average of mortality amongst the officers is one in every regiment yearly, and the average number arriving with each regiment was $37\frac{3}{4}$. Taking the aggregate of the whole number in the six regiments, viz., 226, this gives less than three per cent. as the yearly ratio of deaths amongst European officers, which tallies exactly with the number we before quoted from Dr. Hutchinson’s tables “ of 29

in 1,000 for all tropical stations, where British troops are stationed."

With civilians, the average mortality is $2\frac{1}{4}$ per cent: but with the European private, the mortality is from five to seven per cent. How is this great difference caused? It is not from exposure: for the habits of our military officers, their fondness for field sports, their visiting the mess house or billiard table at all hours, their attendance at Committees and Courts, cause them to be much more exposed to the climate, than either the civilian in his "*Kacheri*," or the soldier in his barrack. It is not from work or duty; for here the occupant of a barrack is almost wholly exempt, whilst the civilian is more engaged than his military brother. Is not the cause to be found in the absence of employment, or recreation, and the want of variety and novelty? Would not this be the verdict, if the civilian, instead of the military officer, were compelled to experience a twelve months' trial of barrack-life in India. The author of the papers, *On the European soldier*, which we have before quoted, extends the necessity of change and variety, even to the daily rations served out to the troops: while he allows that these are liberal in quantity and of wholesome quality, he insists that the system of admitting no variation, during the twelve months, is a bad one, and productive of much that requires to be corrected. The "*toujours perdrix*" is more easily tolerated by the human stomach in England, than in this country: and every one, who has experienced the horrors of a daily grilled "*Murghi*," while making a long "*dâk*" trip, can imagine, that 365 rations of stewed beef in the year would be by no means an improvement.

The necessity of a variety in the daily meal is now not only admitted, but enforced in all our Indian jails—vegetables either being supplied two days in the week, or rice served out instead of "*atta*," on Sundays. The argument, though quaintly put by the writer, has sound sense to recommend it, and we therefore give it as it stands.

"Our military readers will be aware, that an uniform table of daily rations has been established for the European troops of the three presidencies, being the same at all stations and seasons, and on the same scale, as is allowed for Her Majesty's soldiers in Jamaica, with the addition thereto, of firewood and salt granted gratis. The rations are as follows:—

"One pound of bread per man.

"One pound of meat per man.

"Four ounces of rice per man.

"One and two-seventh ounces of sugar per man.

“ Five ounces of tea amongst every seven men.

“ Three pounds of firewood per man.

“ One chittack of salt per man.

“ It is provided that in every instance, when the actual cost to Government of the rations above specified (fuel being supplied gratis) shall fall short of the actual stoppage of three annas and four pie per day, the soldiers shall be entitled to receive the difference back from Government through the Commissariat. This difference in the month usually amounts to ten annas, and sometimes even to a rupee. Taking a month of thirty days, the cost of a man's rations, supposing that a rupee is returned to him, would be five rupees, five annas, and four pie. These rations are not, however, valued so highly by the men. We have heard that, in the case of a man drawing rations, and messing with other men, entitled to draw “ dry batta,” and who consequently receive no rations, his rations are only taken as an equivalent to four rupees, which shows the value put upon them. Queen's troops, coming from home, like their Indian rations, and consider them to be superior to those served out at home; and recent arrivals will often make no objections to receive supplies, which would be rejected by older stagers in India. There is nothing, therefore, to be objected to, in the scale of rations laid down, nor to the Government system; unless we suppose that an old hand in India could provide himself with a better meal, at a cheaper rate, than is provided by Government. It is not probable, that any one would be able to retail the small quantities of rice, tea, sugar, or salt at a cheaper rate, than they can be supplied by the Commissariat. The same may also be said of the bread, which must be baked in large quantities. We suspect, therefore, that it is the meat, which is considered to lower the general value of the rations; and it is very possible that its invariable nature adds weight to this objection. In Bengal, the meat served out is invariably “ beef,”—not exactly the roast beef of old England, but a very lean and tough representative of it. The ‘lean kine of Pharoah’ would appear fat, in comparison with those which are frequently slaughtered. It is extraordinary, how beef is associated with British soldiers of all times. Learned authorities might be quoted to show, that, from the earliest days, all our great battles have been won per force of British beef. There is a good story told of the Duke of Marlborough's cook, who invited the French Marshal's cook to dine with him, in return for a grand entertainment given by the

Frenchman. This latter had all the extraordinary dishes that his country's art could invent; the Englishman was unable to excel him in this respect, and placed on the table nothing but a plain sirloin of beef and a plum pudding. "Sir," said the Frenchman, "this is so uncommon a dish, that I did not expect any thing like it." "Very likely Monsieur," replied Mr. Bull; "but this is a dish for an Englishman to be proud of: it has carried my countrymen twice through France already, and I don't doubt, but that it will do so again."

"Whatever credence we may give to this story, which is just as likely to have originated in a little quiet satire of the primitive mode of cooking practised by the English, and their contempt for their more scientific opponents in the art of 'gastronomic,' the practice of administering to English soldiers pretty severe doses of a tough substance, called beef, has continued to this day. Our readers must not suppose, that the beef is usually roast. A kind of stew with vegetables is the more usual mode of cooking; but we are not inclined to recommend this dish to any one for 365 days of the year. Let our readers, who are inclined to doubt our notions of this matter, try this ration of beef for a year or two continually. Is there no surgeon, or assistant surgeon, of sufficient resolution, to adventure on the task of this experiment, and to try in his own proper person its effects? We can fancy him exclaiming:—

"O dura messorum ilia!"

and forswearing beef for ever after.

"When we really come to consider this question gravely, it must appear, that the constant sameness of this food is injurious to the men: and we know that, in consequence of this opinion, *dry batta* is very often much preferred by the old soldier. It is esteemed a privilege to be allowed to draw *dry batta*, instead of receiving rations; and, if we are correctly informed, it has frequently been applied for and refused. Some men considered their ration of beef, as comparatively good for nothing!

"We must not tire the patience of our readers: for, if these articles are to be of any service in pointing out what is objectionable, we feel they must be short and to the point: but we must make room for a little support from our old friend Fergusson. He says, that although our soldiers' ration is abundant and expensive, yet we seem to have overlooked a great physiological principle, and that is, the natural appetite for change and variety. "It is ever the same; and no man, even if he will,

‘ can be satisfied with this.” His stomach and digestive organs will be heard in their own cause; and, if they be not attended to, their owner will fly to alcohol in solace of their disappointment.

“ How this unvaried meal has continued so long in vogue, it is difficult to say. Most of those, who have the power to change it, see not its ill effects: and some feel a difficulty in meddling with a part of ‘ a system.’ It is, indeed, a system, which ruins the health of many a poor soldier. We only wonder how they stand it—tough beef and new rum taken daily *ad-libitum*! What better *recipe* could we have for chronic dysentery? Could it be worse, if soldiers were contracted for in each regiment, at so much per head, for any available man kept fit for duty, of a given height and weight? This would give a soldier the same chance as a horse, or an elephant, or an ass, which animals, both in diet, clothes, and exercise, are often more scientifically treated, than our men! But seriously, would not the Chinese system of paying the doctor, according to the health of the men, be better than the present? Not that we wish to blame either commanders, or medical officers, for the system of the day: they have found it as it is; and very few commanding officers have either will or power to change it. They have grown grey with the idea, that soldiers are different animals from civilians; and, though they may compare soldiers of one nation or one time, with those of another, yet they seldom ever think, that soldiers can either think, eat, dress, or act as other human beings about them.”*

We might extend the subject much further, and furnish melancholy details of the mortality amongst the children of our European soldiery. The same causes, viz., impure air, bad water, improper food, confinement to the barrack, want of amusement or employment, tell with ten-fold power upon the offspring, whether born, under such adverse circumstances, of sickly parents, or experiencing such a change in their habits and mode of life, on arriving in this country.

Taking the returns of two regiments, that reached India last year, we find, that in one there have been born 44 children, of whom, at the end of the fifteenth month, there are only 29 surviving, shewing a loss of 27 per cent. within the *first year*.

In another regiment, 52 children have been born within fourteen months, of whom 32 have died in the same period,

giving a ratio of mortality equal to 33 per cent. during the first twelve month of their life in India.

In another case, taking the children born in England or on board ship, who arrived with the regiment in India, eight years ago, out of 159 (the original number) no less than 112 have perished. Of the remaining 47, how few, in all probability, will grow to manhood! Hence we see that, whether we take 100 children imported from England, born of healthy parents, or 100 children born of the same parties within the first year of their arrival in India, still the melancholy result is the same—proving, beyond all doubt or question, the system of barrack life amongst our European soldiery in this country to be totally unfavorable to colonization.

This will be seen still more clearly by the following table, shewing the respective ages of the survivors of 261 children born in one regiment, since landing in India 8 years ago:—

From	7	to	8	Years of age	1	} 113 Surviving.
"	6	to	7	"	"	
"	5	to	6	"	"	
"	4	to	5	"	"	
"	3	to	4	"	"	
"	2	to	3	"	"	
Under	2			"	"	38
Died					148	
Total in Eight years.....					261	Births

It would be interesting to know what number of children, born of European soldiers in India, ever return to England; and what is the proportion, in a regiment of those, who, under the most favourable circumstances, attain the age of 21. Many of the deaths necessarily must be attributed to the loss of the mother, during infancy or childhood; and it is gratifying to know that there is now an Asylum in the Hills, which, from the admirable care and superintendence exercised over those, whose cause we are pleading—the children and orphans of European soldiers serving in India—affords the best, if not the only true, insurance of life and health, to a large class, who, with claims upon every one of us, have been hitherto sadly forgotten and neglected.

By a late report we observe that the juvenile inmates of the *Lawrence Asylum* amount to 136, of which number nearly

half are under ten years of age, as will be seen in the statement following :-

Sex.	Entire Orphans	Fatherless.	Motherless	Having both Parents.	Above 10 yrs of Age	Under 10 yrs of Age	Of pure E'n Parentage.	Of Mixed Parentage	Protestants	Roman Catholics	Total number in the Schools
Boys.....	25	21	14	13	37	39	64	12	70	6	76
Girls.....	22	18	6	14	29	31	41	19	59	1	60
Totals ..	47	42	20	27	66	70	105	31	129	7	136

When it is remembered that, out of this number, four-fifths have lost either one or both parents, and may therefore reasonably be supposed to have suffered in some degree in their health, for want of that care and attention, which, it is rightly considered, none but a parent can bestow—the value of the Institution, and its admirable locality as a sanatorium, may be judged of, on learning that only *two* deaths have occurred since the commencement in April 1847, and these were cases of children, who had been only “a few weeks in the Asylum, and who arrived in a state of disease.”*

What a far different result is shown to be the case in the Lower Orphan School of Calcutta, where the deaths are stated to be one in fifteen;† and how is it that the officers of the Company's Service do not advocate its removal to the hills?

It may appear surprising that length of residence does not appear to acclimatize, or confer a greater degree of immunity from disease in India. By returns of the several ages, at which death occurs in this country, it is found, that among the young civilians arriving in India, the ratio per cent. of deaths during the first year's residence may be stated to be 1.95

During the 2nd year's residence	2.35
“ 3rd “ “	2.00
“ 4th “ “	2.20

* Second Report of the Lawrence Asylum for the orphan and other children of European soldiers, serving or having served in India. Sunawur near Kussowlie, 1850.

† Article by H. T. Prinsep, Esq., on the mortality for ages and births of Indo-Britons in the Orphan School, Calcutta, during 40 years.—*Asiatic Society's Journal*, September, 1838.

Here we see that, tracing the same individuals through four successive years of residence, the liability to mortality is on the whole augmenting.

The same result will be arrived at with regard to military officers, who generally reach this country at about the same age—viz., from eighteen to twenty. From perusing the valuable tables furnished in Major Tulloch's Parliamentary Reports, we find that the mortality amongst Ensigns (youths recently arrived) is 23 per 1,000.

Lieuts, at least three years longer resident..... 27 per 1,000

Captains, twelve to thirteen years longer 34 „ „

And so on, in a corresponding proportion with the higher grades. Out of 1,184 deaths among regimental officers of the Bengal army, the following is the proportion occurring annually in each rank, and at each age :—

	Colonels, aver- age age 61	Lieut. Colo- nels, average age 51.	Majors, aver- age age 40.	Captains, aver- age age 36.	Lieutenants, average age 25 to 30	Ensigns, aver- age age 18 to 25.
Died annually per 1,000 of each class	59.4	48.4	41.0	34.5	27.5	23.4

The mortality amongst the civil servants for a period of forty-six years—from 1790 to 1836, exhibits almost precisely the same results, viz :—

	Age above 50 and service over 30 years	Age 40 to 50 Service 25 to 30.	Age 40 to 45 Service 20 to 25.	Age 35 to 40 Service 15 to 20.	Age 25 to 30 Service 5 to 10.
Died annually per 1,000 of each class }	48.6	36.4	35.4	23.4	20.8

In the six European regiments before alluded to, as serving at present in India, and from which very interesting “returns” afford much valuable information touching the “stations” at which located; the time spent in tents, and on the march, campaign or field service; the number of men invalided, and dead; the recruits that have joined, since the arrival of the regiments in India, and the number now effective of the original strength, the casualties by cholera or other diseases,

&c., &c., we learn, that the average age of the privates is as follows:—

No. of Regiment.		Date of Arrival.		In September, 1851
In the	1st	Arrival in India	1842	The average age is 32
"	2nd	"	1842	" 26½
"	3rd	"	1846	" 20½
"	4th	"	1846	" 26¾
"	5th	"	1849	" 26¼
"	6th	"	1849	" 24
Mean of the whole number in six regiments is—26.96				

This table shews a very close approximation in each regiment: and, in the first, in which the average age of the men stands as high as thirty-two, it should be explained, that in no other corps has there been such a heavy mortality. Of 1,035, who originally landed with the regiment eight years ago, no less than 649 have died, of whom 400 were cut off within thirteen months only! The youngest seem to have been the principal victims.

We might conclude here, without branching out further into details, though the subject is by no means exhausted; but must find room for one more extract from the *Medico-Chirurgical Review*;—

" We have said enough, we think, to show that among the causes of disease, which tend to keep up a high rate of mortality among the European residents in tropical climates, the greater number are readily preventible, either by the direct remedial measures, which the civil and military authorities have it in their power to apply, or by the individual self-regulation, which they have it greatly in their power to encourage; and we would urge upon them, therefore, in the strongest manner, that wherever the returns show an unusually high rate, not imputable to the transient influence of an epidemic, they enquire into its causes, and endeavour to remedy them, instead of quietly setting it aside as an inevitable result.

" We have seen what has been the efficacy of such remedies at Hong Kong and at Bellary, and we trust soon to have an equally favourable result at Secunderabad. Can nothing be done for Barrackpore, to remedy the fearful mortality to

“ which every regiment stationed there seems liable? Look at the sad details of this station.

“ The 3rd Native Infantry, stationed for three years at Mynpuri, lost twenty-six men out of an average strength of 753; during three years at Barrackpore, out of an average strength of 865, it lost 283 men.

“ The 57th regiment, when stationed at Benares, lost in three years thirty-five men, out of an average strength of 749; during three years at Barrackpore, out of an average strength of 892, it lost 240 men.

“ The 58th Native Infantry, stationed at Jumaulpore, lost in three years twenty-four men; during the next three years, at Barrackpore, it lost 208 men.” *p. 95.*

Here are three different regiments, which at three remote stations, during a period embracing nine years, only lost an aggregate of eighty-five men out of 2,253; but, when stationed at Barrackpore, the aggregate loss was increased to 731 out of 2,636. The great difference between the stations, in calculating the percentage of mortality, will be best seen by putting it into a Tabular form; thus:—

Regiment.	Where Stationed	Numerical Strength.	Loss in 3 years.	Per centage in 3 years.	Annual per centage of mortality	Where Stationed	Numerical strength.	Loss in 3 years.	Percentage in 3 years	Annual per centage of mortality.
3rd	Mynpoorie.	753	26	3	1	Barrackpore...	865	283	27 $\frac{1}{2}$	9 $\frac{1}{4}$
57th	Benares ..	749	35	4 $\frac{3}{4}$	1 $\frac{1}{2}$	Barrackpore...	892	240	27	9
58th	Jumaulpore	751	2	3 $\frac{1}{5}$	1	Barrackpore...	879	208	23 $\frac{3}{4}$	8
	Aggregate..	2253	85		1		2636	731		8 $\frac{3}{4}$

“ We have not the slightest doubt that this fearful rate of mortality is in great part dependent upon removable causes. How heavy a responsibility rests, therefore, upon those, who have not merely every facility for investigating them, but the absolute power of removing them, when discovered. No considerations of expense ought to prevent the recourse to the most efficacious means for the prevention of disease, that it may be possible to devise; since, to say nothing of other considerations, there can be no doubt that, whether the direct pecuniary economy of sanitary reform will prove as great

among a civil population, as its more sanguine advocates maintain, every rupee judiciously laid out in improving the accommodation, drainage, water-supply, &c., of such of our troops, as are posted in tropical stations, will be repaid over and over again—in the diminution of all the expences, consequent upon the continual replacement of such individuals as die, or are invalided—upon the loss of effective force occasioned by the constant presence of a large amount of sickness, and upon the frequent removal from station to station—which last measure is at present required to diminish the destructive effects of the most unhealthy stations upon the troops stationed there, or, at any rate, to distribute them over a large number, and thus to equalize them, instead of letting them fall for any length of time upon one corps. How much has been done in this respect in the navy, is known to every one. The current statement, that three ships may now be kept afloat with the number of men that were formerly required for two, is not, we believe, in the least exaggerated.

“It was in a great degree through the sagacity of Sir Gilbert Blanc, that those improvements were devised, and through his perseverance, that they were effected, which turned a ship of war from the floating hospital, which it too frequently was, into the healthful residence, which it may now, under judicious management, be considered. Much has been done in the army in the same direction, chiefly owing to the corresponding sagacity and perseverance of Dr. Robert Jackson; but much still remains to be done; and we are certain that, if the military authorities would order an investigation, by competent inquiries, into the condition of every station reputed to be unhealthy, and would seriously set themselves to think, not how *little* they *need* do, but how *much* they *can* do, to remove the causes of disease, which will then be disclosed to them, they will soon be rewarded by such diminution in the amount of sickness and mortality, as shall most amply demonstrate the capacity of the European soldier, for health and longevity in any stations, but such as are located in the midst of pernicious exhalations, whose influence no sagacity or prudence can avert.

“But here, as in many other instances, we have to complain of the very small degree of attention, which has been too frequently given to medical representations by the civil and military authorities. There is scarcely a page of Dr. Mackinnon’s work, which does not bear testimony to the justice of this complaint.

“It is not merely of their apathy, that the medical officer

‘ has to complain. It is too frequently the case that the attempt to draw attention to the imperfection of the existing barracks accommodation, sanitary regulation, &c., causes the medical man to be regarded as a troublesome meddler, and becomes a bar to his advancement, instead of being considered (as it most assuredly should be) an evidence of his intelligence and zeal. ‘ It has been suggested to me by a friend,’ says Dr. Mackinnon, ‘ that my remarks, regarding public health and the sanitary regulations existing in this country, are too freely spoken. I cannot think so ; for I describe things as they are ; and it ought not to be displeasing to a great, just and benevolent government to know the truth. In other parts of his work, he gives every credit to the Supreme Government for its desire to promote sanitary improvements, but laments the want of co-operation among the subordinate officials.’—*British and Foreign Medico-Chirurgical Review*.

The authorities, referred to in the preceding paragraph, cannot even shelter themselves under the plea, “ Am I my brother’s keeper ? ” We entreat them to remember, that their position involves responsibilities on this head ; that the commission they hold, and the pay they receive, bind them as honest men to do faithfully the work that is before them. And let those who are labouring in the good cause, and are discouraged and discountenanced, remember that there is a day coming when the faithful steward will be very surely distinguished from the slothful one : and with this assurance let them not “ be weary in well-doing.” Their efforts may seem fruitless ; but let them remember

“ Not all, who seem to fail, have failed indeed ;

“ Not all, who fail, have therefore toiled in vain.”

The importance of the subject must be our excuse for the length and the frequency of our extracts. We desire not to be original, but to be useful ;—we care not to cry up any set of men or opinions, or to run down others. We are neither exclusively medical, military, nor civil in our views. We simply advocate common sense, and the golden rule of doing as we would be done by. Government and individuals have dearly bought the knowledge, that dissipation and malaria, foul air and foul water, cause death. Let us only benefit by past experience, and, as is the duty of a great government, act *not* impulsively and by starts, but—as sensible men do, when they act for themselves—examine and enquire deliberately and *impartially*, and then act decidedly and honestly. We hope to return to the subject.

ART. III.—*The Times News-paper*: London. 1851.

DEPLORABLE as the ignorance and the indifference of both Houses of Parliament may be upon matters connected with India, and opposed as the views of parties have hitherto always been, when the question of the general administration of the Anglo-Indian empire was under discussion, it is consolatory to reflect, that on two important points there has ever been, and now is, wonderful unanimity of opinion. A Bright may indeed declaim, both truthfully and well, upon the irresponsibility of that indefinite complex mosaic, formed by the India Board, the India House, and the East India Stock proprietors—may show how such a tessellated, discordant, non-organized aggregation of distinct and independent bodies baffles and eludes investigation, and renders responsibility less than nominal—that this want of simplicity of structure and concrete form produces the great fault of the home Indian Government, namely “that you can never place your hands upon it;” that the mover of the question, not perfectly convenient, or perhaps not quite agreeable, to any one of the three constituent (but not co-operative) bodies of the London Indian Government, very quickly finds himself, Sancho like, on the blanket, manned at the corners, not only by “quelques drapiers de Segovic et des Fripiers de Cordoue,” but also by higher functionaries of the East, as well as of the West, who prove, however, both high and low, “tous bons compagnons, et gens deliberez, qui pousséz d’un mesme esprit,” make their unfortunate Sancho cut capers in the air, until they are weary of their amusement; when they charitably replace him, “ou ils l’avoient pris, c’est-à-dire, sur son ane”—that needless secrecy, and objectionable unprofitable mystery are the characteristics of such a system—and, to use his own simile, weary of this game of thimble rig, a Bright may even go the length of saying “Let them get rid of the Board of Controul and the Court of Directors, and have a Government, which would be responsible to Parliament for conducting the affairs of a great country like India.” But he never dreams of demanding either of two things, a representative form of Government for the millions of India, or the transfer of the home branch of the Indian administration to the overworked and inefficient Colonial Office. These are points, in which he agrees with Whig and Tory; neither of whom, whether in or out of office, have ever advocated a representative form of Government for our eastern subjects, or sought to add to the weight of responsibility, which al-

ready overtakes the energies and breaks the back of the ill-fated well-badgered Colonial Secretary. From various motives, men of all shades of opinion and of all sections of political parties, however widely differing in their views upon the efficiency of the existing system, or the necessity for its thorough reorganization, thus assent to two most important particulars;—first, that India cannot be considered, and is not, ripe for self-government; and secondly, that this great Empire, in the home branch of its administration, requires an establishment, separate and distinct from that under which the colonies of the crown are governed, and thoroughly efficient for the performance of the high responsible duties with which it is charged. These uncontested universally received admissions, once set forth and carefully kept in view, remove, not only at the outset of our inquiry, but afterwards in the course of more advanced progress along the path of investigation, many doubts and not a few difficulties. Regarded as axioms, these two admissions lie at the foundation of all that has been, or can be, written on the subject of our rule in India: and, whatever the superstructure to be raised on this basis, there is an evident advantage in clearly understanding, that there is no necessity, either to prove, or specially to advert to such well established propositions:—it would be a waste of the time and patience of the reader.

In thus assuming two most important facts, as axioms of universal acceptance, it does not, however, follow as an inevitable consequence, that the subversion of all native Governments, the destruction of native States and Rulers, and the thorough extinction of all elements for the natural and gradual development of institutions in harmony with the habits, feelings, and state of civilization of the millions of India, are to be regarded as no hardship on the native races. Foreign domination must ever be a hardship: and, the more marked the difference in the language, creed, character and civilization of the dominant race, the more severely, because on a greater variety of points, will the yoke press upon the necks of those, on whom it has been imposed by conquest. It cannot but gall them in a thousand ways: and Peel evinced a statesman-like apprehension of truth, when, in connection with our rule in India and the welfare and contentment of its vast population, he, early in his career, urged it to be our duty “to atone to ‘ them for the sufferings they endured, and the wrongs to which ‘ they were exposed, in being reduced to that rule; and to afford ‘ them such advantages and confer on them such benefits, as ‘ may, in some degree, console them for the loss of their independence.” It may suit the purpose of a panegyrist His-

torian,* circulated by the Court of Directors throughout India, to endeavour to invalidate the wisdom and acumen displayed in these remarks, by drawing a very exaggerated contrast between the beneficence of British rule and the cruelty and oppression of native tyranny. It may also not be impolitic on the part of a Secretary† in the Foreign Department, to array the vices of Muhammadan princes, the instability of their sway, and the evils, which the Moslem rule entailed upon the country, now under the milder and more intelligent supremacy of a Christian power:—but such pictures, as the latter author has given, though tolerably truthful and correct so far as they reach, by no means shake or controvert the views of Peel. At the utmost, they show that, to a certain degree, greater in intention than in effect, our administration has evinced a disposition to study the welfare and prosperity of the conquered masses, over whom its supremacy had been established, and from whom the revenue for the maintenance of that supremacy was to be derived. But it is not in human nature, that gratitude for minor self-respective benefits should have the power to quench the hate of foreign dominion, still less to render the burthen of a foreign yoke tolerably agreeable. To argue in this manner would betray such an oversight and neglect of the deep, ineradicable principles of human nature, as could only be reasonably ascribed, either to very gross ignorance and an utter inexperience of men, or to a blind, self-interested desire to ignore the existence of feelings inseparable from man's nature. No one, thoroughly conversant with the secret political history of India, even during the last ten years, will have been able to close his eyes to facts, which, at times, brought uncomfortable evidence of our real position in India—proving that, however laudable were many of the intentions of the British Government towards the dusky millions under its sway, it had neither struck root into the feelings, nor into the affections or confidence of the people, whom it had enjoyed the opportunity of most effectively befriending; and that, on the contrary, their sympathies were in unison with the hopes and wishes of the discontented classes, whom our rule and system has cast into poverty and insignificance, and whose hostility is only the deeper and more heart-corroding, from the necessity for suppressing and concealing its ebullitions.

Granting all that can, with any truth, be alleged of the superior integrity, the more impartial justice, the higher intelligence, the more perfect organization, the greater security to

person and property, which characterize British supremacy—and granting that our debt of fifty millions (a considerable part of which is owed to chiefs, who, in times of financial embarrassment, were rather compulsorily induced to advance large sums on the security of Company's paper, and to rich natives) enlists a certain number in favour of the permanence of our power;—these admissions do not warrant the assumption, that our rule is popular; that our institutions harmonize with the temper and habits of the people; that the higher classes are at ease, contented with their position, and well disposed towards those, who have superseded them in the management of the country. The case is notoriously the reverse of all this. Any check to our arms—any reverse, such as the memorable one at Kábul—or even any at all doubtful and resultless battles, such as Hardinge and Gough fought with the Sikhs—prove at once, how quaky are the foundations of the Anglo-Indian empire. However much the panegyrists of its beneficent character may feel inclined to indulge in laudatory declamation upon the hold, it is acquiring of the minds and feelings of the people, of the respect and affection they bear towards a power, distinguished by a mild and conciliatory exercise of authority—these self-administered gratulations must be taken at nothing more than they are worth, unless it be wished, at some critical period, to rue the confidence placed in rhodomontades. On such an occasion, the ruler, who built on these illusions, would soon be taught, that, over large tracts, not the faintest echo responsive of such feelings reverberated from the breasts of the people; that, where most favourably disposed, the cultivators, the village communities, which form the great mass of the population, entertain but a passive feeling of favour towards their European masters; and that anything like an active, spontaneous outburst of loyal sympathy, in support of our administration, is alike foreign to the character and habits of the class, and to the depth of good will entertained towards our rule.

How is it possible that matters should be otherwise? Up to the present time, whether willingly, or unwillingly does not much affect the question, encroachment and conquest have been the distinctive attributes of the Anglo-Indian Government. Chief after chief, state after state, have been subdued; until, with the exception of a few subordinate isolated principalities, whose prolonged existence is felt to be a pure act of grace, the whole of India, in its entire length and breadth, has submitted to our authority. An Empire, won thus rapidly by the sword, cannot, however much it may be desiderated by the conquer-

ing race, at once efface the remembrance of its origin, or easily conceal the conditions of its existence. The imposition of a few ephemeral institutions, modelled upon the exemplars of a high Western civilization, and to which the spirit of Eastern manners has not, as yet, had time to adapt itself, only bring into stronger and more violent relief the antagonistic moral and intellectual states of the ruled and rulers. Speak to well-informed natives, by which designation we do not mean English-crammed Babús of Calcutta, but men of experience and observation among the chiefs and people, at a distance from the immediate circles of the Presidencies, and from such, enquire their views and opinions of our power. Will they dwell on our system of jurisprudence, on the purity of our courts, on the knowledge and impartiality of the Company's judges and subordinate ministerial officers, upon the lightness of our revenue assessments, and the great public roads and canals of irrigation, which either have been constructed, or are in course of construction? Not one in a thousand will allude to any of these things: but they will say that we are masters in the art of war; that discipline and military organization were unknown, prior to the advent of the British; that our military institutions are incomparable, and by native states inimitable:—they will add too, that truth, as compared with themselves, is sacred among Englishmen; and that we are faithful to our engagements. The generosity, the justice, the beneficence of the British rule, an Englishman is disappointed to find, are generally left to his own suggestion as topics: and he learns speedily that, however he may have flattered his imagination on the subject of our paternal sway, the sword, in the minds of chiefs and people, is the symbol of the Anglo-Indian dominion; that its nine pounders are the orators, who have, up to the present time, spoken most intelligibly to the people: and that, although our general character for truthfulness and good faith is acknowledged, all the hallucinations, as to gratitude for comparative security of person and property, respect for integrity and impartiality, are mere moonshine—and that too, faint of ray, a complimentary reflection from his own suggestive inquiries and questions.

Public feeling will, of course, vary; for some parts of India were rescued by the British arms from a state fast verging on anarchy; and in such portions of the country, the memory of those evil days, even where not fresh, has not, as yet, been altogether worn out:—but, though it has been our alleged policy everywhere studiously to defend the rights of the ryot, and put down all tyranny or oppression practised upon the people; and we have, therefore, in some degree,

taught the latter to look to us as disposed to be the defenders of the poor, and to arbitrate equitably between the weak and the powerful, yet in so doing, we have alienated a large and very influential class, without, at the same time, supplanting them in the hold, which, from similarity of language, habits, and sometimes creed, they still maintain over the minds and feelings of the masses. We have struck little root in the lower strata of native society; though, on the whole, the best feeling towards us is to be found there: but the great distance between those classes and ourselves, and the intervention of classes decidedly hostile, who intercept, neutralize, and distort the current of action between the British functionary and the populace, weaken extremely, where they do not succeed in annihilating, the bonds of sympathy, confidence, and good will, which might otherwise already have attained to some strength in our older provinces.

This may not be a flattering representation of the position, we occupy in India; but it is a natural consequence of the rapid, all-crushing energy of our sweep to supremacy, and of our state, as a highly civilized, conquering race, having little in common with the conquered, and separated from, and raised above, them by language, creed, morals, manners, and the affluence derived from the subdued. There has not been the time or the opportunity for the rise and spread of a class of impressions, resulting from wise, liberal, unselfish, legislative measures, and from the operations and the blessings of continued peace. Providence may, indeed, reserve for the Anglo-Saxon race, the honour of stereotyping such impressions ultimately on the minds and hearts of the heterogeneous millions of India: but, under this supposition, our rulers will not further or expedite the attainment of the great end of their mission in the East, by ignoring the realities of their present position, and by colouring to their fancy the actual feelings of the native community. Renowned as conquerors, and not unknown as tax-gatherers, it would not be wise to count, as yet, on having realized any great capital of popularity. The Anglo-Saxon in India moves upon the surface; darkness is upon the face of the deep beneath him; and it remains to be seen, whether he will be given that spirit and wisdom, which can alone enable him to form, enlighten, and mould into a higher state of moral, intellectual, and physical civilization, the chaotic mass of people—aye, of nations—which acknowledge his supremacy.

Nor can the warmest admirers of our present system deem it strange, that our popularity should be rated so moderately, if, descending from generalities, they consider in some detail one of the main features of the Anglo-Indian administration. The

gross revenue raised from the empire, is now stated to amount to Twenty-seven and a half millions sterling; and, if the military expenditure, ordinary and extraordinary, is assumed, in times of peace, to be Ten millions sterling (a state of war adding about Two millions more), and the civil expenditure, ordinary and extraordinary, to be also about Ten millions sterling—the estimate will be nearly correct, and yields a total of civil and military expenditure, amounting, under ordinary circumstances, to at least Twenty millions sterling. From this estimate are excluded extraordinary grants, whether on account of public works, such as are in contemplation, if not already actually assigned, for the Ganges canal and Punjab works of irrigation, or on account of donations to the army, and a war scale of staff and analogous expenses; for such incidental charges have but a partial bearing on the subject in view. Here then is a customary gross expenditure, for the ordinary administration of the country, of Twenty millions sterling per annum, out of which, it will be interesting and useful to ascertain what portion is paid to the native, and what to the European, functionaries. This can only be done approximately; but still with sufficient accuracy to answer all practical purposes.

By reference, therefore, to financial reports, it may be easily calculated, that, if one third of the civil expenditure be allotted to the covenanted and uncovenanted European officers, and the remaining two thirds assigned to the native establishments and the departmental contingent expenses of all kinds, such proportions will not be far from the distribution, which actually attains, in the disposal of the Ten millions on account of the civil administration. When the salaries and Durbar expenses of Governors-General, and Governors—of Queen's law courts,—and of the political charges of the Government of India, are included, Three and a half millions, and even upwards, may be allowed as the cost of European agency. Nearly the same proportion holds good in the Military Department, where one third of the Ten millions may be assigned, as the amount disbursed, on account of staff and European officers of the armies; one third to the non-commissioned officers and privates, native and European, including regimental establishments; and the remaining third may be allotted to the Commissariat and other expenses. To be within the mark, it may thus be safely stated that, out of an expenditure of Twenty millions sterling, Six millions eight hundred thousand is the annual disbursement for the European agency, civil and military, employed in the Anglo-Indian empire. As upwards of Three millions (usually near upon three and a quarter millions) go to the home charges, it may be fairly stated that, out of a gross revenue of Twenty-seven mil-

lions, Ten millions, directly, or indirectly, but mostly directly, are paid into the hands of the Europeans connected with India. For the present, however, attention may be confined to the distribution of the Twenty millions, annually spent on the civil and military administration—this being the disbursement, to which the minds of the native community are most alive;—the home charges being a mystery, scarce known, and, where heard of, not understood, by any but a few of the most intelligent natives.

For the Civil Departments, the Six and a half millions, expended on the subordinate native agency, are spread over such an immense surface of country, and among such a host of petty instruments, forming the working machinery of the judicial, police, revenue, and other civil, branches, that, though the sum be large, yet there is nothing invidious in this portion of the outlay. The machinery in question must, under any circumstances, either wholly or in part, whether we, or any one else, ruled the country, be maintained: and, therefore, though much greater than would be thus expended under a purely native administration, yet, as the expenditure is disbursed among the people, it attracts little covetous notice. But the case is different with regard to the distribution of the Three and a half millions to the European civil functionaries; *that*, the higher classes and the more intelligent natives feel, would all have flowed into their own hands, were the Government not in ours; and, accordingly, it is this part of our system, which excites both most observation and most ill-will among the aspiring.

Although nearly a similar amount is expended among the European officers of the army, yet, as their numbers are very much greater and their individual receipts moderate, besides that the outlay is evidently an inevitable necessity on the part of the conquering race, that won, and has to keep, the country by the sword—the distribution is neither so disproportionate in appearance, nor so obnoxious to the envy, and offensive to the pride of those classes, who deem themselves defrauded, by our intervention, of the large portion of the revenue absorbed by the European agency. In the one case, they see Three and a half millions distributed among a class, very limited in numbers, not amounting to two thousand for all India, which enjoys the monopoly of all posts of trust and power, and which, if an average were struck on the total of civil employés, covenanted and uncovenanted, costs the state £1,750 annually for each man of the favoured body. Whilst, in the other case, the Three millions and three hundred thousand present few prizes; and, being scattered amongst upwards of 8,000 persons, make the average cost of each European military officer a trifle upwards

of £412 per annum, that is, not one fourth of the average of each European civil functionary. Hence the very different feelings which, as objects of invidious remark, the two services excite.

In reality the disparity is greater than that which the foregoing averages show—the number of covenanted Civil Servants of the Company being only about 800 for all India. Striking an average upon the receipts of the Civil Service, as indicated in Bengal by the amount of the annual subscriptions to the Civil Service annuity fund, levied at the rate of four per cent. on all public allowances, the cost of each is upwards of £1,500 per annum; but this, for many reasons, which it is needless here to detail, is not, in consequence of omissions, a correct average upon the mere covenanted Civil Servants of the Company; and, of course, it wholly omits the larger class of civil appointments, such as Governors, Lieut-Governors, Members of Council, Queen's Judges, and the like. The average, therefore, of £1,750 per annum is not only under the mark, but, from the actual distribution of the Three and a half millions, and the marked distinction made between the covenanted and the uncovenanted branches of the service in their respective scales of emolument, is not an accurate exponent of the real difference of footing, on which the favoured service appears in the eyes of the native community. It is true, that, by act of Parliament, the highest offices are open to all: but, though the law Imperial impose no disabilities, the law Directorial of patronage is in complete antagonism to the act of Parliament in this respect; and, practically, a native cannot hope for anything higher than to be admitted to compete with the European uncovenanted servants for the charges of Amín, and Sudder Amín. Sir J. W. Hogg, when boasting that there were native judicial officers in the receipt of £600, £700, and £800 a year, forgot to specify how many native functionaries were in the receipt of such salaries, and what proportion their numbers bore to the European uncovenanted servants in such positions. The House of Commons, from the speech of Sir J. W. Hogg, were left at liberty to come to the conclusion (and, indeed, reported as the speech is, could not very well arrive at any other) that the whole of this class of appointments were in the hands of natives; a palpable fallacy. Moreover, what did the boast in reality reveal, but, that after many years of labour and the continuous exhibition of much ability and integrity, a native, if fortunate, may hope to attain to such a scale of emoluments, as an inexperienced, and at first incompetent, youth of the Civil Service at once enjoys upon landing in India? It was tantamount to a declaration on the part of the

deputy chairman of the Court of Directors, that the highest reward for eminent judicial ability and integrity on the part of a native was the remote chance of some day obtaining a position, in which such distinguished conduct would be remunerated on a scale of not quite one half the average cost of each European member of the civil administration. How few ever succeed in reaching this culminating point of native ambition, is notorious in India: and hence, not only is there a deep feeling pervading the higher and more respectable classes, who recoil from the thought of years of drudgery in our offices, with such faint prospects of ultimate advancement, but a similar vein of discontent prevails among those of a lower class, who do enter our offices; are formed there; upon whom all the real heavy work of the civil administration falls; and who find, after long years of toil, that the service has for themselves but niggardly rewards, and that the posts of respectability and emolument, available to a large, and, on the whole, a meritorious class of competitors, are very few. The very men, raised by our system from a state of indigence to one of usefulness and influence, are often the most bitter, because the most severely disappointed in their aspirations. They are not a whit less hostile, as a body, than the humiliated gentry, nor less disposed to set the people against the British rule, to play upon their prejudices, foster ill-founded apprehensions, and foment a malignant discontent, whenever occasion serves. All this, their knowledge of our system, our isolation from the people, and their own intervention as the chief chain of connection between ruled and rulers, enables them to do effectually when so disposed. We shall hereafter show that this is not a visionary idea, but borne out by facts.

The European reader of these pages will scarcely apprehend the extent of the disparity upon which we have dwelt, and the effects which it must inevitably produce, unless, first bearing in mind the general condition of the people, he at the same time has presented to him the *status* of the ruling few. He must bear in mind, that the great mass of the population consists of the agricultural classes; and that, even where the Muhammadan population shows a considerable ratio to the Hindu, as in the North Western Provinces, and where the country is dotted with a fair proportion of large cities and good-sized towns, besides large cantonments of troops, the simple village communities vastly preponderate. Thus, by the census of the N. W. P., taken in 1848, the agricultural classes are rated at 14,724,233, whilst the non-agricultural classes amount only to 8,475,435. In other parts of India, the agricultural classes would yield a

much greater excess over the non-agriculturists; for in the N. W. P., out of a population of 23,199,668, as many as 3,747,022 are Mussalmans; of whom 2,150,745 are non-agriculturists. Now, if the favourable assumption be made, that Government only takes one fourth of the gross produce of the land, and the average produce may be calculated as giving a return of 24s. per acre; 18s. remain to the cultivator to cover all the charges of raising, reaping, and disposing of the crops, besides the clear profit, or rent, on which himself and family are to subsist. Adopting, for example, the Cawnpore statistics, the proprietors, a class numbering 16,542, average 78 acres each: and therefore this, the most wealthy class, consisting of the landed gentry, under the supposition that the whole estates were under cultivation, which is a fallacy, would average a gross receipt of £70 per annum, out of which, when the expenses of cultivation are deducted, the net rent, or profit received by the proprietors, will scarcely average more than one third, or from £23 to £30 per annum. When we come to the 61,000 hereditary tenants, averaging 6 acres each, and 35,000 tenants at will, averaging 4 acres each, the former large class will have an average gross return from the land of £5-8 per annum, and the latter £3-12 per annum, out of which the proprietor's rent must be paid, the land-tillage charges met, and the tenant maintain himself and his family. Mr. Montgomery, in a note at page 39, averages the cultivation, for reasons assigned, at only 3 acres per cultivator; but, as our object is to present the most favourable view that the subject admits, although not at all doubting the accuracy of Mr. Montgomery's average, we prefer adhering to the somewhat higher ratios above given. Sutherland assumes £4-19 as the total produce per annum of a cultivator; from which, if one fourth be taken as the Government revenue demand, there will remain £3-14-3, which nearly tallies with our lower average. Considering that the census gives an average of six persons to each house, which is probably about the mark, for the agricultural classes, the foregoing yearly incomes of hereditary tenants and of tenants at will are extremely small, and even those of the proprietors but slightly raised above pauperism. Perhaps, a fairer view of the condition of the people may be derived from a general average struck upon the

7,54,818 acres at 18s.	13,586,724
53,411 „ „ 24s.	1,281,864

Giving a total of 14,868,588

For the maintenance of 5,83,460

agriculturists, and the cost of cultivation;—or an average of somewhat less than £1-5-6 annually per head, to cover tillage charges and support of individuals connected with the land. The Cawnpore district is selected, because it is a productive one, has the advantage of considerable towns, a large cantonment, good markets, both in the district itself, and in its neighbourhood, as at Lucknow; has been some time under our management; and because its statistics have lately been ably set forth. It may therefore be taken as a fair sample; and though every province in India would vary in the average thus struck, yet a mean of the whole would not, in our opinion, deviate far from the result, derived from the authoritatively printed Cawnpore statistics, of 2s. 1½d. monthly per head of population.

The questions of our different modes of levying the land revenue, and of the weight, or lightness of our assessments, are not here under consideration: and we are perfectly well aware that an average, thus struck, necessarily gives a more favourable general result, than that corresponding with the actual condition of a people—for it throws out of consideration the partial accumulation of wealth, and, with a communistic sweep, levels all ranks, conditions, ages, and sexes, to one standard. Such a standard, evidently fallacious, if specially applied to individual cases, is, however, useful as a general exponent, or sign of the state of a people; and the reader, when casting his eye down the subjoined scale of civil functionaries, should bear in mind the scale of civilization among agricultural millions, corresponding with a condition where, after deduction of the Government demand of a fourth, that vast population averages per head a gross return from the land of 2s. 1½d. Under such circumstances, civilization could not be expected, even were the religion and the manners of the people other than they are, to attain any very exalted degree: and that which prevails, namely, a system of agricultural village communities, whose internal organization is perfectly simple, thoroughly efficient, moulded by and adapted to the means, religion, and habits of the pauper masses, would seem to be the only one suited to the existing condition of the people. Whether or not our civil establishments are not pitched at too high a scale, with reference to the wants of a community, which has only reached to such a stage of civilization, may be matter for after consideration: but that, which is now required, is, that, realizing to himself the actual condition of the many millions of India, as indicated by the foregoing observations, the reader picture to himself the relative positions of the ruled and rulers, and the degree of intercourse likely to subsist between a small class of very highly paid foreigners, dropped

by our system like king Logs amid the multitude, and separated from them, not alone as being the isolated recipients of power and affluence, but also by the more formidable barriers of creed, of language, and of the highly artificial civilization of the West—which is in such violent contrast with the patriarchal simplicity pervading the life and manners of a poor, labouring Eastern people. What Sir Thomas Munro wrote to Canning in 1823, is still but too true. “By not coming to India you ‘have escaped the irksome task of toiling daily through heaps ‘of heavy long drawn papers. I never had a very high opinion ‘of our records; but it was not until my last return, that I ‘knew that they contained such a mass of useless trash. Every ‘man writes as much as he can, and quotes Montesquieu ‘and Hume and Adam Smith, and speaks as if we were ‘living in a country, where people were free and governed ‘themselves. Most of their papers might have been written ‘by men, who were never out of England, and their projects ‘are nearly as applicable to that country as to India.” Though our records in the course of eight and twenty years have, at any rate in the Bengal Presidency, been materially improved, and, Hume and Montesquieu being out of fashion, data have been accumulated, upon which some degree of reliance can be placed—still the habit of speaking and writing, with reference to India, as if it had attained a wholly different stage of civilization from that which it presents, is but too prevalent. The education, language, and ideas of the English gentleman, often most unintentionally on his part, travesty eastern matters, and convey false impressions of the actual conditions of the dusky millions under our rule. The press too, essentially representing only the European portion of the community, and representing it too but partially, being chiefly restricted to the subjects of local interest at the Presidency capitals, has not tended to correct so much, as might otherwise have been the case, this habit of viewing our Eastern subjects through the distorting medium of a pair of English spectacles. Perhaps, therefore, the very matter-of-fact-point of view of what, on the general average, each head of the agricultural population is *worth* per annum, may enable our English readers more truthfully to realize the state of the people, as compared with that of their rulers, than any more elaborate description which we could have attempted. “What is he worth?” is a thoroughly English mode of measuring a man; but as a mode of gauging the general condition of a people, it is of less objectionable application than in the case of individuals. Keeping therefore the six-

pence-a-week millions in mind, let the eye run down the following list for Bengal alone :—

{ Governor-General of India	Rs. 250,800	0	0
{ Chief Justice.....	83,347	2	0
{ 2 Puisne Judges, each	62,510	4	0
4 Members of Council, each	160,320	0	0
5 Judges of Sudder Dewani Adawlut, average each	52,200	0	0
2 Members of Sudder Board of Revenue, ditto ...	52,200	0	0
3 Members of Board of Customs Salt and Opium, average each	52,200	0	0
4 Political Employment, average each	50,000	0	0
4 Secretaries to Government, ditto	52,200	0	0
2 Opium Agents, ditto.....	42,000	0	0
9 Revenue and Abkari Commissioners, at an aver- age each of.....	38,000	0	0
30 Judges, at an average each	30,000	0	0
45 Collectors and Magistrates, at salaries of from... To.....	38,000	0	0
And ...	12,000	0	0
9 Miscellaneous Appointments, varying from	28,800	0	0
To.....	15,000	0	0
22 Additional Collectors, Joint Magistrates and De- puty Collectors, from.....	12,000	0	0
To.....	8,400	0	0
2 Secretaries to Boards	30,000	0	0
1 Register	30,000	0	0
35 Assistants, at .....from	6,600	0	0
To.....	4,800	0	0

Deputation allowances are omitted.

We add, by way of contrast with the above, the scale of salaries in the Uncovenanted Branch of the Civil Service, as set forth in the Finance Committee's Report in 1843, since which time, however, there have been some modifications, which would slightly alter the averages struck on the data afforded by the tables appended to the report of the Committee. The following scale of salaries appears to us a very proper one, and would be so considered by the members themselves of this branch of the service, were it not for the violent contrast with the preceding one, which invites invidious comparisons.

UNCOVENANTED SERVICE.

36 Principal Sudder Amins averaging each	5,228	0	0
30 Sudder Amins, ditto.....	3,060	0	0
217 Munsiffs, ditto	1,344	0	0
134 Uncovenanted Deputy Collectors, ditto	3,516	0	0

With the exception of the few, though not insignificant, appointments heading the list, which, being Crown patronage, are bracketed together, all the rest are the routine grades of the Civil Service; a service, of which it has been justly observed,

that its members are all sure of prizes. When the eye runs down this list, which only includes Bengal Proper, and omits the Agra, Madras, and Bombay Presidencies, the full value of this one branch of the patronage of the Court of Directors can be estimated, and their jealousy of any infringements of its privileges can be easily understood. It is a most noble patrimony for a corporate body of twenty-four self-elected gentlemen to monopolize: and well may their sons, nephews, and cousins bear them gratitude for sending them into a vineyard, hedged and guarded with such extreme solicitude. The fact is, that, under this system, the Government of India is in the hands of a few families, all more or less connected by intermarriages, and all having their roots in the Court of Directors. All therefore have a common interest in the *statu quo*; and all are, not only banded together, but also linked with the Directors of the E. I. Company, by every tie, which can foster sympathy and create unity of purpose. To avoid any approach to personality, we abstain from tracing out the web of a few families, which, like a capacious net, embraces no small share of India; in so doing, however, we forego what would prove equally amusing and instructive to our readers, and would cast much light upon points, not otherwise easily comprehensible. But, although it is in our power to give a succinct sketch of the snug family groups, into which the Anglo-Indian civil administration, in great measure, resolves itself, as the general statement answers every purpose, without giving offence to many good and able servants, there is no need to inflict the pain of such a dissection. Illustrative of the fact however, may be instanced the advice, which a lamented dignitary of the Church gave to a young man starting on his career. "My dear Sir, in society in India it is never safe to express any opinion upon the conduct, public, or private, of any member of the services; for the chances are infinite that you are talking to his relative or connexion; and remarks, innocent in intention, may in consequence give offence, and create mischief." The advice was excellent: but the truth, upon which it is based, has a far higher bearing than that of warning a youth from making enemies; viewed with regard to the internal administration of India, it lays bare the root of much that is unsound and calls for amendment, but which cannot be expected to meet with reform under the existing system.

This radical defect, in what may be termed the organization of the service, pervades all its branches to an extent often but little suspected. It is, however, most conspicuously prevalent in the more favoured and lucrative civil line. The defect is not surprising, for it is a natural consequence of a century of rule,

under the present, or a slightly modified, Directorial patronage, which of course instinctively flows in set channels. It is an evil of the greatest magnitude and of the most noxious practical working, and, in our opinion, of far more importance than the mere economical question of the emoluments of the Civil Service.

With respect to emoluments, the salaries, when contrasted with the general condition of the people, are enormously disproportioned; and, when compared with the scale of salaries, which attains in England, appear extravagantly high. There can be no doubt that, under another system and a less close monopoly of patronage, the work could be as well done at a cheaper rate: yet, with respect to some of the salaries, we are of opinion that it would be inpolitic to reduce them. Where a high order of ability and much experience are required, it is sound economy to remunerate them well, and bad economy to pare them down;—the saving being an insignificant item in the balance sheet of India, and holding no proportion to its deteriorating effect on the hopes and exertions of those ambitious to rise. There is, however, a large class, in which reduction might, with advantage, be carried into effect: for the general run of the salaries is pitched at too high a scale, and have thus given a false ratio, on account of which the subordinate native and uncovenanted functionaries, measuring their own work and emoluments, are too apt to feel deeply discontented. So long as unnecessarily high salaries are maintained as *unapproachable* objects of invidious comparison, this discontent has always a show of reason: and the existence of two such scales of salaries, as those of the covenanted and uncovenanted services, both really blended in work together, but the maximum emoluments of the one pitched at the minimum, or entrance, retainer of the other, is an anomaly very repulsive to able servants. Few but those, who have had the opportunity of watching the effect upon the general service of the state produced by excessive salaries in any one branch, can appreciate the unfavourable influence they exercise, not alone on the other branches of the public service, but also upon the Government itself, which, with one such established scale of reference, is often constrained to comply with the conventional ideas it has fostered, and is thus forced into unnecessary expenses. This sort of action and reaction tend to increase and perpetuate the evil.

Several successive Governors-General appear to have been convinced of the expediency of remedying such a state of affairs, and endeavoured to introduce reforms; but where were they to find instruments to carry out their views? Financial Committees, composed of those interested, perhaps sometimes unconsci-

ously, in defeating the very objects for which they are assembled, are, in their results, very like some of Lord John Russell's late Parliamentary Committees—expert at neutralizing: for they are sure of the warm sympathies of their brethren of the services, and equally so of paternal approval, though covert, on the part of the Directors. Here then is a subject, which it is notorious, that a Governor-General cannot at present deal with;—one of those matters of administrative principle, which can only be successfully and properly handled at home and by Parliament, taking scrupulous care, however, that, if done in Committee, or before Parliamentary Commissioners, there be no suspicion of Leadenhall-street influence. No other authority can effectually grapple with this thorny subject: and, if Parliament or its Commissioners lean on the Court of Directors, they will inevitably be misled, and all *real* Financial reform frustrated.

Lord William Bentinck in 1828, 1829, 1830, at a considerable expense and trouble, had a Finance Committee at work. What were the results? Between the Commission themselves, and the Court of Directors, his contemplated reforms were reduced to a minimum—it might be said completely emasculated—and in that very branch of the service, which in his opinion needed the most pruning and setting in order. Baffled in one direction, he had recourse to the expedient of employing military men, as a cheaper, and, when properly selected, an equally efficient, civil machinery. But there are limits to this resource, and moreover, it is one to which the Court of Directors, naturally enough, have a most jealous aversion. Contenting himself, therefore, with what he could effect without very violent opposition in this track, he also broke ground in the extended employment of natives and of uncovenanted servants. How unpalatable all this was to his Honorable masters, may be seen by reading their special advocates, and in particular, their own historian, Thornton.

Lord Auckland made a few more encroachments; but he received a lesson, as to the spirit such measures would evoke among the Directors, when he made Captain Carpenter, Deputy Collector and Joint Magistrate of Benares. This officer had been retained with the Ex-Rajah of Coorg; and the Governor-General, thinking to turn a sinecurist into a useful servant, and to give aid to the over-burthened Magistrate of Benares, hazarded the experiment of investing Captain Carpenter with subordinate magisterial powers. Lord Auckland soon learnt his error. The Court of Directors had made no difficulty in approving of the measures carried out in 1838 against the Amirs of Scinde, or of those which, under the Russophobia,

were undertaken against Herat and Dost Muhammad Khan: but these were very different acts from trenching on *the* prerogative. The latter was a far more hazardous and delicate transaction—one in short, that could not be tolerated: so, the arrangement was *disapproved*, and the Governor-General ordered immediately to cancel the appointment, *in no very considerate or complimentary manner*.

The results of Lord Ellenborough's Finance Committees are well known. No one at all conversant with the former ones ever for an instant anticipated, that even his energy and his avowed indifference to Directorial interests, could overcome or alter the truly conservative spirit of his Committees. Both were therefore laborious mummeries: but they are said to have caused no small alarm in Leadenhall-street, and, in conjunction with some special acts of severity, and his disregard of the doctrine, since promulgated and acted upon, that the high political appointments—the few prizes in that department—are the indefeasible right of the Civil Service, are generally believed to have excited the violent animosity, which was displayed by the Court of Directors. We are of opinion that the latter body might safely have viewed the assembly of the Finance Committees with the profoundest tranquillity and equanimity. It needed no prophetic gift to foresee and foretell their fruits;—Nothing!

Neither Lord Hardinge, nor Lord Dalhousie can be charged with having lost sight of politic respect, both for their own interests, and for a partiality, pardonable enough (as human nature is constituted) on the part of their masters. Both saw the sore, and have avoided getting into an unprofitable conflict by probing it. The consequence has been a harmony, but seldom disturbed. Lord Dalhousie may act as he fancies with respect to the Koh-i-nûr, or any other booty; he may leave India to be governed, as it may, whilst he makes Thibet his head quarters; he may thus virtually abdicate the charge conferred upon him by his two masters, the Crown and the Court of Directors; but he knows well, that all this is of little importance, provided he abstains from giving a shock to the nervous system of the old lady (as some natives take her to be) of Leadenhall-street. A few gentle passes over her revered head, along her trunk, and down to her very extremities, suffice to put her into a pleasant trance; and the good creature will then remain in a state of comatose insensibility to all the proceedings of “our Governor-General.” But let him only pinch a toe of his patient—touch one of the members of the favoured service, or their salaries—and the counterpass will not only send a shock through the cor-

porate body in India, but to the very brains of the neuralgic system in the India House. Farewell then to accord, and to the ægis of Hogg! Here then, we have no hesitation to repeat, in the revision and reform of the general scale of civil salaries, is scope for Parliamentary Commissioners. They alone are competent to deal with the matter in an independent manner.

We have before stated, however, that we regard the mere economical measure of a reduction of salaries, as of purely secondary importance. Wisely carried into effect, it would be a beneficial measure; and, if accompanied, either by the extension of the uncovenanted service, or the amalgamation of the two now distinct branches into one, would enable the State, at the same, or a reduced, cost, to provide a magistracy, numerous enough for the wants of the population, and, therefore, calculated to render the check and supervision of our police and judicial establishments much more efficient than at present.

A question of higher importance to the permanent welfare of India, appears to be, whether the patronage of the Court of Directors should be continued to them, after the expiration of the Charter—to be exercised in the same manner and under the same conditions as at present. Those most hostile to the Court of Directors will probably make no difficulty in conceding that, provided the basis, from which the patronage emanates, were expanded, they have no objection to the class or stratum of society, out of which the recruits for the Civil and Military Services of India are drawn. The qualities required are active habits, proper feeling, intelligence and education; but these should be combined with as much independence from the fictitious wants of a highly artificial state of Western civilization as possible. There should be a union of superior intelligence with simplicity of habits and character; the natives of India are equally repelled by either extreme. What to them wears the air of a supercilious exquisite refinement, is as foreign to their comprehension and as repellent to their feelings, as some of the coarse vices of our lower grades are disgusting to their ideas of propriety. Now, we know no class, which is likely to furnish more promising instruments for a vigorous Anglo-Indian administration, than the class of gentlemen, from whose families they are at present in great measure drawn—families, which are neither too poor to be able to afford their children a good sound education and to instil into them the necessity for exertion and self-dependence; nor too rich, so that their sons escape exposure to the insidious action of a home training in the lap of affluence and luxury, and, from the first, form moderate views and expectations. Holding this opinion, we should regret, for the sake of

India, to see the patronage pass into hands, which would disseminate it differently ; with whom the acquisition of Parliamentary influence and support being the rule, all else must be subordinated to that primordial exigency. Such disposers of patronage would probably dip both higher and lower in the strata of English society for their Indian recruits, than the stratum, from which they are usually derived ; but it may be doubted, whether the service would be benefitted by this ; in fact, it is pretty certain, that it would be deteriorated. We hold therefore to the continuance of the great mass of the Indian patronage in the hands of the body of East India Directors ;—but neither of such limited numbers, nor of so anomalous a constitution and position, as they are at present.

The best commentary upon the truth and good sense, which characterized some of Mr. Bright's remarks in the debate on Mr. Anstey's East India motion, was lately afforded by the debate in the House of Lords upon the Punjab booty question. We should compliment ourselves on the fact, that India had actually been the subject of two debates in that august assembly, were it not that a doubt may be reasonably entertained, whether the motions on Indian affairs in the Upper House, since Mr. Anstey's in the House of Commons, may not be fairly ascribed to the imperative necessity, under which the Peers laboured, of carving out work for themselves. To assemble, day after day, in their gorgeous hall to do nothing, except to exhibit the spectacle of the hereditary legislators awaiting work from their masters, the Lower House, was dreadfully undignified and humiliating. Evidently too, there was no hope of this state of torpor being invaded ; for the Commons were still floundering through the swamps of the Ecclesiastical Title Bill, and the life of their session was otherwise paralysed by the flickering animation of an expiring Government. All the world were as busy as bees about the Exhibition ; and foreigners, after a good look at Paxton's Crystal Palace, would probably peep into the gold-bedizened hall at Westminster. It was a hard case ; something must be done for the credit of the house ; so Lord Wharncliffe, honest man, hit on the *pis aller* of Indian public works, and expatiated with the usual share of Parliamentary ignorance, upon a topic on which he knew that his audience were as profoundly ignorant as himself. Hobhouse, as Lord Broughton, proved his own intimate acquaintance with the subject, by chiming in harmoniously with all that had been said laudatory of the East India Directors, and by talking wisely of the Eastern and Western *Jungle* canals. This afforded Lord Ellenborough an opportunity to announce his very heterodox views respecting

the several merits of tank and canal irrigation, and to touch on roads—rail and plain—and cotton. The latter Peer, however, with more “*actuality*” (to use the Press term for hitting off topics of momentary interest) than Lord Wharncliffe, had already conceived, that, as every body went to see the Koh-i-nûr, the question “how it came there;” might have a general, as well as a specific, interest. Though unpalatable to the Court of Directors, it was certainly admirably calculated to give an additional zest to the pleasure of the Exhibition-visiting world—the mystery enveloping its change of hands being quite as enigmatical as Chubb’s Sensitive Case. Whether that brilliant be an exemplar of the precision of our political sense of ‘*meum*’ and ‘*tuum*’ in the affairs of Indian Princes, does not so much interest us at present; but, from the ventilation of such questions, as Lords Wharncliffe and Ellenborough mooted, collateral questions, often of the deepest importance, arise and are discussed: and one such turned up in the course of the booty debate, which deserves notice in connection with the matter we have in hand.

Mr. Bright’s observation, upon the difficulty of laying your hand on the Indian Government, was curiously exemplified. Lord Broughton designated the Court of Directors, as respecting India, Trustees for the Crown: whilst, on the other hand, the Duke of Wellington argued that the Governor General is the representative of the Crown. The latter was indubitably nearest the mark, in point of fact, though not in point of law. But, as representative of the Crown, and therefore the fountain head of justice—the one person, to whom both India and England are entitled to look for independence of thought and impartiality of judgment and action—the one person, upon whose fearless and unbiassed exercise of these attributes, the purity of the Anglo-Indian administration rests—how is a Governor-General placed with reference to his other masters, the Court of Directors, who, as the parents or patrons of the office holders in India, are keenly affected by any economical reforms, or acts of a remedial or punitive character, which the Governor-General may deem it essential to carry into effect? His authority is, by act of Parliament, subjected to the *durante bene placito* of the very body, counter to whose sympathies and interests it may frequently be his imperative duty to act. No one will be inclined to judge very severely, or to expect more from noblemen or commoners thus circumstanced, than may be reasonably anticipated with respect to the average amount of principle, which pervades political men of the day: but it is nevertheless essential to mark one of the most glaring defects of the exist-

ing system, and to point out, that as you can seldom hope that either noblemen or commoners of wealth and independence will, from motives of pure benevolence, quit the arena, on which their talents have gained them political weight and distinction, in order to exile themselves to rule in India; so, it behoves the legislature, calculating on the circumstances of the average description of Governors-General they are likely to obtain, to place these men, on whom depends ultimately the general character, which our Anglo-Indian administration is to maintain, in a position, in which independence of thought and action shall be secured to them with as anxious a jealousy, as that evinced by our British constitution for the thorough integrity and independence of the bench of Judges. If it be advisable that the Judges in England shall not hold their commissions, *durante bene placito* of the Crown, how far more essentially necessary, that a Governor-General, the representative, like the Judges, of the highest attributes of the Crown, shall not hold his commission, *durante bene placito* of a corporate body of twenty-four gentlemen, themselves wholly irresponsible, but whose sons, nephews, and connections form the machinery of that administration, for the purity and efficiency of which he is held responsible by the Crown and by his country? As well might we, in England, invest those, whose private interests and parental feelings are sure to be affected by a Judge's decrees, with the privilege of issuing authoritative opinions upon that Judge's decisions, and with the authority of stripping him of his ermine at their pleasure. This anomaly, the fruitful source of much of the mal-administration and needless extravagance which exists, lies at the root of the existing system. It is indefensible in theory, and incalculably evil in practice, subjecting the many millions of India, to the really irresponsible Government of a limited and not wealthy class, consisting chiefly of the numerous members of a few families, with no interest in the country, other than that of obtaining as high salaries as they can whilst there, and of leaving it with their thousand a year pension, and accretions from savings, as soon as they possibly can. The tendency of such a system is to render the interests of the few, all in all. The interests of the many are attended to, so far as subserves the interests of the few, and no further.

Fortunately, the force of home public opinion being appreciable even in India, and the service so eminently desirable, the few have, on the whole, been most laudably anxious to fulfil their duty with talent and integrity. The faults, with few individual exceptions, have been, and are, rather

those of the system than of the particular instruments: but the result is, that there has been but little progress; the Indian community of nations has stood still—the silent, but not unobservant, witnesses of the (to them) phantasmagoric entrances and exits of the functionaries, forming the well paid pageant of our civil administration. It is to be presumed, that an arrangement so preposterous and in such violent antagonism to every sound principle of constitutional legislation, will not be permitted to continue: and that, as the remedy of this radical evil is as easy as it is essential, the Court of Directors will be forced to part, either with their patronage, which they would be very loath to do, or with that unrestricted power of recall, which, with the view of rendering Governors subservient to the corporate interests of the Court of Directors, the latter keep hanging ‘in terrorem’ over their heads. Consistently with the welfare of India, these two functions cannot exist in the same hands: and it is not difficult to foresee that the new Charter Act will certainly altogether fail, if vitiated by an enactment so impolitic and reprehensible, that the application of its principle in England to the office of a parish beadle would never be tolerated. For the sake of India, we wish to see the initial patronage of appointments to the Civil and Military Services retained, as one of the functions to be discharged by a properly constituted Court of Directors. But, strong as our conviction may be, that such an arrangement will secure the best material for the members of the services, and much as we should regret to see the patronage pass into hands, whose rule of action would be of an entirely different stamp, and whose oscillations from high to low could never be predicated, and might traverse the whole scale from the aristocratic summit to the democratic refuse of the people of England—yet, even this would be preferable to the prolonged existence of an anomaly, which no unprejudiced and disinterested person, who has watched the internal working of the present system, can have failed to recognize as its most deeply seated, most radical evil. If the fountain head is to be freed from poisonous self-respective influences, let a Governor-General’s commission be for the same limited period as at present, subject of course to renewal, if the home authorities think proper: but let it be made out for such period, *quamdiu bene se gesserint*; and let them, like the Judges of England, be lawfully removable only on the address of both Houses of Parliament. It will, hereafter, be shown how the home branch of the Indian administration may be made really, and not alone nominally, responsible to the Houses of Parliament: and how, in this manner, the Governor-General

would also be directly amenable to the control of these assemblies. But, with this exception, there ought to be no check upon the independence of a Governor-General in council, other than that of the members of such a council; and, with the view of the efficiency of this check, these members ought never, on any pretence or plea, to be separated from the Governor-General. Wherever the exigencies of India demand the presence of a Governor-General, there most assuredly the attendance of the Supreme Council is imperative: and, in order that its members may feel themselves on a right footing, both with respect to the Governor-General and to the Court of Directors, they also should be not otherwise removable before the expiration of their five years, than upon address by the Parliament—their commissions running, like that of the Governor-General himself, *quamdiu bene se gesserint*, for the specified period, which too, if advisable, should be renewable.

Whatever may be thought of the recall of Lord William Bentinck from Madras and of Lord Ellenborough from Bengal, late events, which we could quote, and the truly Whig expedient of shifting off responsibility, by diluting all action through the tardy proceedings of commissions, which can throw no other light upon the subjects of inquiry, than what the Government already possess, prove the absolute necessity of the reform which we advocate. External energy has never been wanting, whether for aggression or defence—and would not again be wanting, were it necessary. But having rounded off our Empire, and taken up its lines of *natural* frontier; the risk of invasion having sunk into a bugbear, which no one entertains; and the causes for aggression having, in future, to be sought;—the prospect is promising for the internal improvement of the Empire, if its functional energy be not paralysed by an evil, which gnaws its core. Future danger lies in the collapse of the Empire, should the organization of the administration remain on such a footing, as to render the defecation of its internal evils almost a moral impossibility.

We do not think Lord Dalhousie a timid man, or inclined to countenance corruption: but his conduct, on several occasions, has betrayed a politic perception of the difficulties of his position, and a mode of getting over them, adroit, rather than straightforward, and studious of expediency, rather than of principle. Nor is this surprising: for there is no mistaking the *animus* of the Court of Directors. Wherever a Civil Servant of the Company is assailed, mark how gallantly the Parliamentary members of the Court step forward in his defence! Nothing could have been finer, if only truthful and disinterested, than

the boldness with which, on Mr. Baillie's Ceylon motion, Sir J. W. Hogg, in his support of Lord Torrington, seized the opportunity of defending his Lordship's chief adviser, Sir T. H. Maddock. The following passage in the course of his uncandid attack upon the venerable Chief Justice of Ceylon, Sir A. Oliphant, is an admirable specimen of building on the ignorance of the House. As reported in the *Times*, it runs as follows: "With respect to Sir H. Maddock, it should be remembered, that he was a distinguished man, who had rendered service to his country in trying times, whose private character was beyond reproach, and who, therefore, was a very proper person to be listened to by the Government." Our English readers, although they must be ignorant of the value of Sir J. W. Hogg's estimate of the man, may yet judge from this instance of the acuteness of those Directorial feelings, which led the Deputy Chairman to make such a desperate endeavour to screen from that public odium, which his conduct richly merited, a member of the favoured service;—that too, be it remembered, when the individual in question had made himself notorious by intermeddling in the policy of the Governor of a Crown colony, and, by a fatal presumption, which his position, as a landholder and speculator in the colony, should have restrained, in advising measures, of which it is difficult to pronounce, whether their illegality as set forth by Sir F. Thesiger, or their barbarity, as shown by the Blue book, were most conspicuous. From this example, English readers may easily infer the extreme delicacy and hyper-caution, which it is incumbent on a Dalhousie, unless resolved to commit suicide, to observe, if he wish to keep on good terms with the masters, whose *bene placito* he has to consult. Circumstanced as he is, the impeccability of their sons, nephews, and cousins, might form a leading article of his Indian administrative creed. To this, an Act*, passed not long ago by the Supreme Government, has gone far to set the seal of legislative authority.

The Act in question, however, as it removes the check, which the independence of the Crown Judges, hanging 'in terrorem' over the heads of the Civil Servants of the Company, could not fail to exercise, so it necessitates the establishment, in a responsible Governor-General in Council, of an authority, enjoying in its controlling powers, the same thorough independence of position, as that conferred on the Crown Judges. There *must* be a constitutional counterpoise to the legislative exemption from

* Act No. 18 of 1850.

responsibility and restraint by the Crown Courts, which we have noticed. In no other way can the people of India be assured of protection against the worst abuse—the corruption of the civil administration; and none can be conceived so effective, as that which virtually brought the strength of Parliament, through a Governor-General and Council answerable to that assembly, to bear upon this danger.

With respect to the other alternative, namely, that of the initial patronage passing out of the hands of a properly constituted Court of Directors, we are unwilling to dilate. Under such circumstances as effectually broke off the sympathetic bond, which unites the members of the Indian services with the Directors of the East India Company, their authority over Governors might, if not incompatible with the dignity of the Crown (whom Governors virtually, though not at present legally, represent) be left in the hands of the Directors; but this presupposes a complete re-organization of the Court of Directors, so as to render them really responsible to Parliament; and such a re-organization would necessitate a greater amount of radical change, than that which the first noted modification of the existing system would entail. Moreover, now that steam has brought England near to India, and that the chiefs and people of the latter country begin clearly to understand, that Great Britain is not governed by the East India Company, but by the Queen and Parliaments, and that the East India Company is altogether a subordinate body, forming no portion of the constitutional Government of England, and having no claim from rank, distinction, or intelligence to the sovereignty of India—there is a palpable and an unexplainable absurdity (as all know, who have endeavoured to render it comprehensible to either chiefs or people) in continuing the unrestricted power of recall of the representatives of the Crown in a mere ancillary body, enjoying the customary immunity from responsibility, which forms the well known characteristic of all close, self-elected corporations.

Whilst, however, sedulously guarding the independence of Governors from the sinister influences of twenty-four gentlemen, who, many of them, know no more of India than they do of Siberia, or the Mountains of the Moon, we have said that, on no plea or pretence whatever, should the Governor-General become independent of the Supreme Council. This is a point of very great importance, deserving the most careful attention of the legislature. It would not be difficult to show, that, from the time of Lord W. Bentinck to the present, there has *never* been any necessity for the now habitual separations from their Council, which seem to be the favourite object of each successive Gover-

nor-General. The result of this systematic departure from the intentions of the Act is, that the Council becomes virtually a cypher, and practically has little or no influence on the measures of most moment to the Empire. If he be a man of ability and energy, the Governor-General, invested with all the powers of the Governor-General in Council, except those of legislating, has no check upon the course, which these qualities may choose to run, except the accidental influence, which irresponsible secretaries may be able to acquire and to exercise. It will then depend upon the degree of experience and of self-reliance, which a Governor-General has, how far such accidental influences may operate at all. On the contrary, if a weak man, he inevitably falls completely into the hands of his secretaries, who thus practically usurp the functions of the Council. It would be needless to point out the numerous objections to either alternative: but fortunately the remedy, though it may come somewhat late, is simple. Wipe out from the next Charter Act the clause, which sanctions the deputation of the Governor-General *without* his council, but *with* all its powers; and substitute a clear provision, that, wherever the Governor-General moves, there too must proceed the Council. Under the present arrangement, there can be little hesitation in saying that, beyond affording three or four gentlemen the opportunity, in the course of five years, of feathering their respective nests and of making snug purses, the Council and its President are politically of extremely little use.

When the Governor-General is away, invested with all the executive powers of the Council, the position of the President in council is as great an anomaly as any that can be conceived; for clearly, either the President in council is a shadow and has no authority, or else you create for the nonce two Governors-General, with equal and independent powers. The Act, at present in force, is so worded and constructed that either position may be argued, on the specifications of the Act as a basis, with pretty equal soundness of reasoning. Accordingly, instances are not unknown of a clash between these two exalted functionaries; and the late Governor-General refused on one occasion, to use his own words, to become the President in council's registering clerk.

Again, look at the consequences, when the subordinate Governments are concerned, should by accident (which is possible enough in practice) under certain emergencies, the President in council and the Governor-General clash in their independent communications to the minor Presidencies. The responsibility of construing the provisions of the Act, and of deciding which

master to obey, lies on the shoulders of the Governors, who would need a good deal of legal acumen to meet the cases, which might at any hour arise, and have sometimes already arisen, under the current Act.

The arrangement has a further glaring fault. Usually the Deputy Governor of Bengal is at the same time President in council; and as, such, he pronounces *ex cathedrâ* upon the propriety of his own acts. We have known these in several instances called into question, and an appeal made to the Governor-General of India;—and such appeal rendered nugatory by the Deputy Governor preferring, in his other office of President in council, to deal himself with the appeal against his own acts.

There is but one remedy for these, and other numerous anomalies. Wherever the Governor-General may move, there too must move his Council; and no Lieutenant or Deputy Governor, whilst a Governor-General was in the country, should ever be President in council: though it is very proper that some one of the subordinate Governors should be appointed, with reference to the sudden demise, or other termination of the career of a Governor-General, provisional President in council.

This Council having a very important part to play, if our views are correct, its composition and the selection of its members should be with regard to its functions as the Supreme Council for all India; and the nomination of its members should rest, not with the Court of Directors, but with the responsible branch of the home Indian administration. Besides the Governor-General and the Commander-in-Chief, the Council should consist of two civil and one military member, taken from the Indian services. The Home Branch of the Indian Government, being answerable to Parliament for the selection of the members from the services, would, probably, pay more attention to merit, ability, and experience, than to mere seniority: whilst the members, feeling their position, though a secure one, yet one of real responsibility, would have every incentive to a wise and independent discharge of their duties.

It follows, as a consequence of the changes advocated, that puerile secrecy, the present East India House mystification of the most simple and ordinary affairs, would form no part of the system. Mill's evidence in 1832 was true to the letter.

“The secrets of the Indian Government, like most other secrets, are in general good for very little. In short, I do not think I am going a step too far, when I say, that, if all the secret dispatches, which have been sent from England to India, instead of having been sent, had been put into the fire, the situation of India would hardly have been different from

‘ what it is.’ Except, under circumstances of peculiar difficulty in war times, it is seldom of any use in India; though, at present, secrecy forms the rule of the service, and that, not alone in the diplomatic department, where, to a moderate extent, it may be useful and sometimes even necessary, but also in every branch of the general administration.

To the Governor General and his Council, thus constituted, we would entrust the very onerous charge of selecting fit men as Lieutenant Governors, not alone of the Agra, but also of the Madras and Bengal, Presidencies. There can be no reason, after the experiment so successfully made with the Agra Presidency, why the others should not be placed upon an equally simple and efficient footing. No good reason can be devised after this practical example, for maintaining the present expensive machinery of Governors, Councils, Boards, and all their costly adjuncts in triplicate. A Lieutenant Governor at each Presidency, with responsible secretaries in the Revenue, Customs, and Marine Departments, would be more effective, and half as expensive as the present system. A Lieutenant Governor for the Bengal Presidency; another for the North Western Provinces, that is for the present Agra Presidency and the Punjab; and a third for the present Madras and Bombay Presidencies conjoined, would be ample provision for the local administrations; which should be subordinate to the Supreme Government, and cease to correspond direct with the Home Branch of the Anglo-Indian administration. Without the slightest detriment to the efficiency of Government, by the abolition of useless but costly Councils, Boards of administration, and Boards of a multiplicity of denominations, a saving to the state of at least £250,000 per annum would accrue: and, as the Home correspondence would be simplified, and necessarily reduced to one half its present bulk, there would follow no insignificant relief to the Home Branch: and no Secretary of the India house, or analogous functionary of the Home Branch, would in future years, when giving eulogistic evidence, advance the fact, that 500 folio volumes were in daily use. No stronger condemnation of a needlessly complicated machinery of administration could well have been given: and, as we are pretty sure that, since 1832, no improvement, except in the reduction of the length of the despatches from India, has occurred, their number, if we mistake not, must have much increased.

On the subject of Boards, we hold an opinion entirely opposed to that which has prevailed at all the Presidencies. Responsible secretaries are a far more efficient instrumentality. Not only would we sweep away the Boards at the three Presiden-

cies which we have chalked out, but there should be no such thing in connection with the Supreme Government. Besides the Home, the Foreign, the Financial, and the Military Secretaries of the Government of India, there should be a Marine Secretary, and a Secretary of public works. Corresponding with these Government, or State, Secretaries, there should be local, or under, secretaries at each Presidency, responsible to their several Lieutenant Governors, in the same manner as the Government of India's Secretaries would be held answerable for their several departments by the Supreme Government. Under one or other of these heads, the duties, now ostensibly performed by irresponsible Boards, can without difficulty be classified: and, if India is to make any advance from its present condition, there can be no hesitation in saying, that the Department of its Public Works is one of primary importance, though hitherto, because not coming with propriety under a civil functionary's charge, it has been the fashion to hold it as of an entirely secondary order.

In support of our opinion respecting Boards—an opinion formed after watching the operation of several different kinds, both civil and military—the practice of Lord Dalhousie may be adduced. If Boards were of the utility, and had the qualities which their advocates instance, where would have been the necessity for the numerous Commissions, which lately have been the order of the day? Boards are notoriously, in India, subsidiary to the interests of the pillow—perfect swamps of individual responsibility. But for the charge of personality, which we would, if possible, studiously avoid, we could run through nearly all the Boards of *all* the Presidencies, in support of the unexaggerated accuracy of the foregoing definition of a Board.

Secretaries, under our proposed system, would have no sinecures; and, as they ought to be men of talent and experience, their salaries ought not to be on a lower scale than those which are at present allotted to the different Secretaries of the Government of India. The Presidency Secretaries should, as at present, be on a lower, but still a very handsome, scale of remuneration: for it must be repeated that a niggardly economy in such appointments is extremely prejudicial to the real interests of good administration. In the same manner, the highest judicial appointments, the prizes of that important branch of a sound Government, ought, as at present, to be liberally paid: but there can be no good reason for maintaining the existing *general* scale of civil salaries, which, in every department, is out of proportion, alike to the exigencies of the service and to the condition of the people. The latter we have shown to be in a state, which in England would be termed general, if not universal, paupe-

rism; and if the total amount of property under litigation in the courts were compared with the judicial charges, the exorbitant ratio, which the latter bear to the former, would substantiate the fact alleged—that the cost of the covenanted branch of the judicial service is extravagantly out of all keeping or proportion with the real condition and the real wants of the people. We are well aware, that this comparison only presents one phase of the subject: but, as an indication of the adaptation of cost of establishments to work to be done in one large class of cases, no one can deny the propriety of such a test. Cast out of account the Crown Courts at the Presidencies, and the highest appellate Courts of the Company, namely the Suddur Dewani and Nizamut Adawluts—all of them Courts, in which the salaries of the Judges ought to be high—and then strike the ratio between the mere salaries of the European Judges and the value of the property litigated before them, and, according to the different Presidencies, it will vary between fifty and seventy per cent.

The state of society and of civilization, which pervades the many millions of India, calls for a simple, cheap, expeditious administration of justice. Ours is neither cheap, nor expeditious. Indeed it has become so complicated a system, that the people are never presumed to understand it, whilst the pleaders and the subordinate ministerial officers are perfect adepts at making a profitable use of its intricacies: and consequently, the latter classes prey upon the ignorance of the people to a degree but little apprehended, and often very unwillingly admitted, by the European judicial officers. Now as a remedy for the complex evils of our police and judicial system, India does not want a more elaborate, bar-trained set of European functionaries, with ideas of law and equity derived from that Augean stable, which the genius of a Bentham and the labours of a Brougham have hitherto failed to weed of its gross fallacies and inconsistencies, and chaotic maze of sinister and noxious influences. England is herself struggling to recover somewhat of the natural and simple system of justice, from which she has so far and fatally wandered. Her County Courts—her as yet futile attempts at systematic registry—her insufficient throes to shake off the incubus of a Court of Chancery, whose rules and practice of equity are to the nation synonymous with expence, vexation, and hopeless delay—are all warnings against plunging India into the meshes of a system, from which our own country is, with slow, toilsome, doubtful success, striving to disentangle itself. India needs no such system, nor any approach to it. On the contrary that system must serve as a beacon to warn our

stately vessel off from the shoals and rocks of the Law Ocean of old England—an ocean of such perilous and uncertain navigation, that no insurance offices have been as yet bold enough to do business with the unfortunate craft, that are forced upon its treacherous waters.

To a certain extent we concur in the following remarks, elicited from the talented editor of the *Spectator* by the trial of Jotí Pursaud : “ The trial of Jotí Pursaud at Agra illustrates at once the best and the worst features of the English political system. Although direct bribery may have declined in the polite circles of official life, corrupt motive, self-interest, over-ruling patriotism, and a servile submission to the cant of the day, are more powerful than ever they were ; and all India, it may be said, is sacrificed to the spirit of officialism, cliquery, and systematic laxity. At the same time there is something in the indelible Saxon impulse to independence, which works even *through* those corruptions ; thus the development of our law system brings with it lawyerism, and that independence, which tells so well in the profession, and which may be hired for the occasion.” The greatest curse, that could be inflicted upon India, is the development of that law system, of which the independence of the barrister and the boldness of counsel may be incidents, but most certainly are not necessarily resulting consequences. The editor has been led very remarkably to over-estimate the mode in which, from the instance of Mr. Lang’s defence of Jotí Pursaud, “ the Hindus appreciated this display of English legal machinery.” If there be one thing more dreaded under our rule than any other, it is this very English legal machinery, as exemplified at Calcutta, Madras, and Bombay : the mere name of the Crown Courts is a terror—and a terror that from these foci has diverged and spread far and wide over the breadth of the land. The natives of India, of any education or observation, are as much alive to the evils of the English legal machinery as the editor of the *Spectator*, when he penned an editorial, entitled “ Equity swallowing up law ;” for they have had cruel experience of the working of the English system, and could parallel the illustrations so forcibly given in the subjoined extract, by instances quite as telling. Neither Hindu, nor Mussalman, but would answer the question put, exactly as the editor himself does. Speaking of the Committee appointed by the Law Amendment Society, he says :—

The Committee investigated the cause and nature of the distinction between law and equity ; balanced the advantages and disadvantages flowing from the distinction ; and considered the best plans for abolishing the distinction.

The jurisdiction of the Court of Chancery was, in its origin, nothing more nor less than a spiritual usurpation by the Ecclesiastical Chancellors of the fourteenth century. The technical rules incapable of expansion, and the strict and unvarying judgments, which in earlier times the common law opposed to the tyranny of the barons, or the corruption of Judges, became intolerably restrictive, as freedom advanced and the social relations of the subject became more complex. The clerical Chancellors, therefore, after the example of the Prætors at Rome, assumed to exercise a personal compulsion over the citizen, in cases where the rigid common law would have omitted to assert some right, or restrain some wrong. Their jurisdiction was at first the mere substitution of the arbitrium of a religious Judge for the fixed decrees of the letter of the law: but, in course of time, the application of their discretion was regulated by fixed rules, which they drew in part from the civil law, and in part from abstract morality and justice; and at the present day, the arbitrium of the Judge prevails no more in Equity than in Law. Precedent has superseded discretion; and the decrees of the Chancellor—who has long ceased to be an Ecclesiastical personage—are no longer moulded on each individual wrong, but are binding in their application to entire classes of cases. We have thus two systems of jurisprudence, of different origin, principles of action, and modes of procedure;—the Equitable system having been originally framed to mitigate, correct, and assist the legal, but having now lost that flexibility and power of individualizing its relief, which such an office would seem to require.

Only two advantages can be alleged in favour of preserving the division of jurisdiction thus established: the preservation of the ancient forms of common law, and the increase of professional skill attainable by the division of professional labour. The first can only have been mentioned by the Law Amendment Committee to show their impartial attitude. At this time of day, when the injustice wrought by 'forms of actions' has already condemned them to a speedy abolition, it is an anachronism to count the preservation of ancient forms as an advantage. If they be preserved, let them be preserved in the Museums of the country for antiquarian inspection, and not in its Forums for afflictive use. The second advantage is illusory; for division of labour in the acquisition of substantive law would be obviously facilitated by the adoption of one uniform rule of formulary law.

What, then, are the advantages? Here is a list of them, which we will make plain by adding the pith of some of the striking illustrations, which the Committee has industriously collected—

" 1st. The line, which separates the two jurisdictions, is so uncertain, that, in many cases, preliminary investigation of great nicety is required, before it can be ascertained whether the remedy should be sought in law or in equity.

" 2nd. In many cases a complete remedy cannot be had, without having recourse to both Courts, and thus bringing two lawsuits instead of one.

" 3rd. Courts of Law are compelled to decide without reference to equitable principles; and, consequently, to do injustice, with a full knowledge of the fact, and an anticipation of the subsequent overthrow of their judgment by the interference of a Court of Equity.

" 4th. Courts of Law and Equity in many instances administer the same law; and thus a party is liable to be twice vexed for the same matter, and to have the judgment of a Court of Law in his favour rendered valueless by the adverse decision of the Chancellor on the same point.

" 5th. The existence of two distinct systems of pleading and practice is of itself a great evil.

" 6th. Courts of Equity are compelled to decree that the parties them-

selves should carry their orders into effect, which occasions much endless trouble and expense.

To begin, then :—in any case involving many complex interests, no lawyer is able to tell his client for certain, which is the proper court to ask relief from. In the great railway case of Moseley and Alston, which we all remember a year or two ago, the counsel argued seven days before the Vice-Chancellor of England, as to whether they ought to begin the fight in the Courts of Law or in the Court of Chancery ; and Sir Launcelot Shadwell decided in favour of Chancery ; but, after five days more argument, on appeal before the Lord Chancellor, Lord Cottenham reversed the other decision, and handed the parties over to the Courts of Law. It was still possible that the Law Courts, more certain of the limited extent of their province, would drive them back again into the region of Equity. So, in an old case reported by Peere Williams, the defendant stopped a suit in Chancery to recover the sum due upon a bond, because an action at law would lie ; and then he got Chancery to stop the action at law, because there had been no consideration for the bond. How absurd, that the Court of Equity could not entertain the suit, and that the Court of Law could not retain the action ! But sometimes the Lord Chancellor will go into those Courts of Law for advice of the Judges on matter of law, or assistance of the juries on matter of fact. When he has thus driven the suitor to the expense of proceedings before other tribunals, he maintains his independence by disregarding the advice, and doing without the assistance, which he has sought. In the case of *Morris versus Davis*, the Lord Chancellor put the suitors to the enormous expense of three trials at law, and after all decided the issue of fact for himself ; and everybody remembers how Lord Eldon once took the opinions of two benches of law Judges, and then decided the law in a manner inconsistent with all their opinions. These expensive remedies offer such irresistible temptations to the wealthy and dishonest, that justice is actually *bought by the richest suitor*. But not only are the two systems unparallel in procedure ; they are antagonistic in principle. A Court of Law utterly shuts its eyes to the interest of the orphan, for whom property is vested in trust ;—it sees only the trustee ; but the Court of Equity views the infant as the owner, and the trustee as a person with a conscientious duty to perform. Equity views the purchaser of a debt as the owner of that debt ; but Law says that there cannot be such a thing as a purchase of a debt : so Equity is obliged to compel the seller to let the buyer use his name in an action at law for the recovery of the debt. At law, the husband can seize all his wife's unsettled property ; and the law even encourages him to seize it, by holding that, if he survive her, his right to it will become indefeasible : therefore Equity will in some cases seize the husband himself, and make him hold the property " in trust " for his wife. Law and equity carry their war so far, that they seem unable to agree in their primary moral code. Practically, a deed, which is foul in the Court of Chancery, may be fair in the Court of Law ; for some instruments, which an Equity Judge would impound and destroy, the Judge and jury at law must respect and enforce. This vile confusion of principle and justice involves even third parties in its consequences ; for, if a man let his land on lease, and then mortgage his reversion, the person, to whom he mortgages the land, may, under very common circumstances, eject the leaseholder notwithstanding the lease, and take the land to himself. These things are not merely " fictions of the law ; " they are much worse than " shams "—they are moral lies, the habitual practice of which cannot but blunt the moral sense ; and while they exist, the world has cause to say, not in any vulgar declamatory spirit, but with serious truth, that no thorough lawyer can be a thoroughly moral man.

"What remedy can be devised to meet these numerous and glaring evils?" You may amalgamate the two systems, so as to embrace the juster principles of Equity in the system of Law. In doing this, you may preserve the existing Jurisdictions concurrently, simply importing the principles of Equity into the Courts of Law; or you may abolish one of these jurisdictions, and administer the principles of both, by the procedure of one of them, or by some newly-framed procedure. The first mode was tried by Lord Mansfield in the latter half of the last century, when he sought to take notice of equitable claims and defences in a Court of Law. The main objection to it is, that under it the Court of Chancery would virtually become a Court of Appeal for the control of a large number of decisions in the Courts of Law. you must therefore have but one jurisdiction to apply the principles of the two systems. But the modes of procedure in Chancery are so cumbrous and expensive, that to adopt them solely would be a falling back; while against the adoption of the modes of procedure in the Law Courts, there is the experience of the State of Pennsylvania. In that state there is no Court of Chancery; the principles of equity and law are administered as one code by the courts of law,—the legal principle always yielding in case of conflict to the equitable; but the courts there admit, that with their rules of procedure, they cannot enforce the just maxim, that he, who seeks equity, must do equity, nor deal with more than two interests in the same suit. The remaining course, that of framing a new procedure suited to administer law and equity as a single code, is the one that has been adopted by the State of New York.

The inquiries of the Committee of the Law Amendment Society into the operation of that experiment were assisted by the American Ambassador, Mr Lawrence. A series of questions, prepared for the purpose, were forwarded by that gentleman to such quarters in the United States, as should insure answers to them of the greatest jurisprudential weight and the most perfect freedom from any sort of bias. We understand that they settle the question in favour of the New York Code, for the cheap and speedy administration of justice which it has introduced. This fact will be more formally communicated to the public in due time. Meanwhile, the public will receive with deference and welcome the unanimous conclusions of the Law Amendment Committee—

"That justice, whether it relate to matters of legal or equitable cognizance, may advantageously be administered by the same tribunal; that where the principles of law conflict with those of equity, the latter shall prevail, to the exclusion of the former; that all litigation, whether it relate to matters of legal or of equitable cognizance, may advantageously be subjected to the same form of procedure; and that the rules of procedure be embodied in a code."

Why, that, which with great labour the Law Amendment Committee arrive at as a novel result, and which the *British* public are to receive with deference and welcome (when they can get it) is the formulary of our Indian law system—a formulary, which, besides being in harmony with reason and common sense, has, moreover, the advantage of being in general unison with the principles of the Hindu and Mussalman codes. Let us have no approach therefore to the English system, which is in course of laborious self-combustion, in order that from its ashes may arise the very system, which we have already without its aid. No greater curse, we confidently repeat, could be in-

flicted on India, and none more likely to shake, if not dissolve, our power.

Although opposed to the English system of law and its machinery, yet, at the same time, with the view of obtaining a cheaper and more numerous magistracy, and of throwing open to the wholesome influences of Saxon independence and impulse the whole range of our Indian civil administration, we would, although retaining a large portion of initial patronage in the hands of a Court of Directors, break up the monopoly, which at present vitiates the system, by making the covenanted and uncovenanted services to coalesce, and by empowering the Governor General in council to employ in civil charges, not only such military officers, as appeared peculiarly qualified for entering upon the discharge of civil duties, but also any Europeans, whose acquirements and experience, whether obtained at the Bar as pleaders, or in any other manner, during a residence in India of five or six years, ensured an efficient discharge of the duties entrusted to them. If five or six years in India were deemed too short a period of probation, before European residents could be employed in substantive civil charges, it might be increased; but that period is ample for the purpose of weakening mere ministerial influence, and sufficient too for qualification, being the time, which a civilian in fact takes to prepare himself in India for real utility in the administration; it is the calculated time of what may be termed his apprenticeship. Such a modification would somewhat reduce the estimated value of Directorial patronage, each share of which was formerly estimated to be worth £13,000 per annum, and now, in consequence of the lamentable over-supply in all professions, may probably be fairly rated as having a value of £15,000 or even £16,000 per annum; but the administration would be immensely benefited by a measure, which rendered available, not only the talent to be found in a very large military service, but also that of men of education and experience, who, by energy and ability, succeeded in working out for themselves a position in public, and in official, esteem in India.

One point must not be lost sight of, or blinked from subserviency to the cant of English prejudices. It is of great political importance, though the fact is often overlooked, that civil and political employment should be open to military men. Not only does this circumstance incite the army, generally, to the acquisition of the Eastern languages and to a knowledge of the people; but it insures to the British Government, by their employment in such charges, military men practically conversant with the character and habits of our vast population: it forms

a class of officers of a high stamp, men fit to cope with such emergencies as might, at any unforeseen moment, arise in an empire, constituted as that of India. Overweening security is out of place; those, who know our position best, avow its *internal* dangers, and confess the precarious nature of our footing. At a moment when least expected, there may be need for a class of men, who, to the professional confidence of experienced officers, knowing what the sword can do, unite an intimate acquaintance with the country and its institutions. These are the men for times of peril; and the Indian Government should always have them at command. They are as cheap, and, when properly selected, as efficient a civil machinery as the Government can obtain: and, though we do not go the length of Colonel Sutherland, who advocated one united service for India, for which those entering it should be trained in the first instance to habits of military life, because, in our opinion, such a united service would be too exclusive: yet, undoubtedly, the example of the Arracan, the Tenasserim, the Saugor and Nerbudda, and the Punjab Territories, proves how extensively such machinery may be applied, not only beneficially to the people, but with financial and political advantage to the Government. The same reasoning applies more strongly to the political department, in which, as Mr. Elphinstone justly observed, military experience is an essential element of an efficient political officer's training. Whoever were employed, however, whether covenanted civil servants, military men, or uncovenanted Europeans of education and ability, let all be open to their industry and energy. Away with the system, which has lately been adopted, of rendering high civil and political appointments, the feather beds, on which to let down easily civil secretaries disappointed of a seat in Council, or unequal to further continuance in their Secretariat labours! High political charges ought not to be restricted to any one class or department; for Government should not be cramped in the selection of its instruments for important posts: but this we hold to be a vastly different thing, from avowedly rendering the few prizes of the political line the means of comfortably shelving civilians, who, from their seniority, or from other considerations, are found in the way, and are therefore thus provided for, at the expence of the just expectations of old and deserving servants of distinction and ability.

Under the system, thus briefly and inadequately sketched out, there would be fewer civil appointments for the Directors to distribute, and they would be of less intrinsic value: because, civil offices being open to competition, mediocrity would not, as

at present, be certain of high emoluments. The supply too would have to be regulated by the demand: and as this would fluctuate within limits, which a few years would show, there would be no practical difficulty in adjusting the average amount of this branch of patronage. One result, however, evidently would be, that Haileybury should be abolished, and that candidates for the civil appointments in the gift of the Directors should either be passed College-men, whose standing and ability would thus be known, or, if not College-men, that they should be made to go through the ordeal of an examination before independent examiners. We advisedly say, passed College-men, because we think it a great misfortune both to men themselves and to the service, when they come out too young and half educated: it prolongs a (to the state) very expensive period of probation and of empirical acquisition of knowledge, at the cost, not only of the Government, but also of the people. It would of course be easy to ensure that the College course had comprehended the study of the principles of international, civil, and criminal law, and that the wide subject of jurisprudence had entered largely into the line of study. With this provision, the usual collegiate course and its concomitant rivalry with the foremost youth of the nation, would far out-balance any supposed advantages from matriculation in such an institution as that of Haileybury, and would furnish functionaries of far higher promise.

Government, under such circumstances, would have a very wide sphere of selection for the machinery of the internal administration of India. Mere seniority would cease to be the rule of the service; mediocrity would find its level and not be pushed above it; and, as in an empire of such heterogeneous elements, there is an infinite variety of offices, so, by throwing open the civil branches of the service, in the manner we advocate, there would be no difficulty in adapting the instruments to their intended functions. At the Presidencies, where British mercantile interests prevail, where, consequently, the Anglo-Saxon element enters largely into the social structure, and where the Crown Courts have been long established and have inoculated the community with English lawyerism, its tastes could be gratified by the appointment of Magistrates trained at the bar. For the millions of India, who dread English lawyerism even more than the present Company's Courts, the Director's civil nominees, the European residents, the natives of talent and education, and the army, would all furnish their quota: and, with such a variety of basis, it would be an easier matter than it is at present, for the Anglo-Indian Government to meet the requisi-

tions of a vast population at no overwhelming cost, and to find fit men for every position. This, with a simple code of laws, in lieu of an indigested mass of regulations; courts of judicature adapted to the social organization and condition of the people, which our present courts most decidedly are not; a simplification of the whole system of procedure, and the incorporation, to a much larger degree than at present, of the system of Panchayet—are essential to putting some stay to the present anarchy of law, and to the harvests of vile, intriguing, case-causing Vakils. Increase, rather than diminish, the powers of the Judges' and Magistrates' Courts; cease to nurse and foster an endless system of appeal; make the people in greater measure settle their own differences, as they did of old everywhere, and now do over large tracts of India, by Panchayet; quash litigation by developing, instead of crushing, the most effective institution, that the genius of the people could have devised for thwarting litigious intriguers. What the Courts of Reconciliation are to Denmark, Panchayets have from time immemorial been to India. Well may Sleeman say, "The people are confounded at our inconsistency; and say, where they dare to speak their minds, We see you giving high salaries and high prospects of advancement to men, who have nothing on earth to do, but to collect your revenues, and to decide our disputes about pounds, shillings and pence, which we used to decide much better among ourselves, when we had no other court but that of our elders to appeal to."

Our system has overlooked a fact, to which all history bears testimony. As evil pervades mankind, and, according to the religion, the climate, the country, the physical and psychological condition of the people, adapts itself with wondrous pliancy to infect the mass as much as possible; so in conflict with evil, and endeavouring to subdue it, are those principles of virtue, which, whencesoever derived, enter more or less into all ethical and religious systems, and, backed by the interests of the majority, which are always in antagonism to individual rapacity and violence, base their mode of action upon the structure of society, and the general habits and condition of a people. Accordingly, in no two countries, with the same object in view—the discovery of truth, do we find precisely the same means adopted for eliciting it. There is a national, as well as an individual, idiosyncrasy. The *morale* of every people is the composite production of so many different elements, that it would be as vain to look for exact similarity of character in any two nations, as in any two persons. We English are too fond

of putting our hats and long-tailed coats upon every people we meet with on the face of the earth; forgetting that where they already enjoy turbans, dhotis, &c., the symmetrical harmony of the whole cannot be more remarkable than the felicity of adaptation. We are so wedded to our own institutions and their forms, that our eyes are closed to the merits of other systems, which are the birth of the physical and moral conditions of a people, to which our own nation bears no analogy. The consequences are well set forth by Holt Mackenzie, "We are everywhere met by people complaining of the authorities set over them, and the authorities complaining of the people. The longer we have had the district, the more apparently do lying and litigation prevail, the more are morals vitiated, the more are rights involved in doubt, the more are the foundations of Society shaken, the more has the work of civil Government become a hopeless, thankless trial, unsatisfactory as to its immediate results, hopeless as to its future effects." What was a true picture in 1830 we will vouch for being as accurate in 1851. One and twenty years, instead of amending, have deepened the shades of this terrible sketch of our rule—and this too, in spite of many very noble efforts on the part of individuals to stem the torrent. Throughout this article we have sought to avoid personality; and, therefore, even where it is to praise, we will not mention instances of men labouring, in a manner unknown in England, from break of day to Sun down; borne up, as long as the "physique" would last, and even somewhat longer, by the high resolve to do their own work and check corruption. We could mention examples of strong men breaking down in health from the difficulties and anxieties incurred in bringing to justice an all influential but deeply corrupt Amlah. We, however, only notice the instances to show that the system is more to blame than the men, who endeavour to work it out, often with a self-devotion most exemplary, but too constantly futile as to good. There is too much of centralization in our judicial system; too little has been left to that best of all modes of maintaining security of person and property, the instrumentality of the people themselves. This was the agency, to which the native system of police and the institution of the Panchayet trusted for the administration of a vast mass of civil and criminal business, which is now drawn to our courts as a focus:—a dung heap would, perhaps, be a somewhat more correct simile; for there the mass accumulated, and, leavened with perjured witnesses and sordid unscrupulous Vakils, wholly unchecked by the control of local public opinion, became a mass of hope-

less corruption—differing from a dung-heap, however, inasmuch as it may and does infect, but cannot manure, the district, its operation present and future being unmixed evil. Why throw out of gear, as we have done, the sanative action of local opinion? It is the only one, which operates effectually among the millions of India. Public opinion, in our sense of the word, they have none; but local and class opinion is all influential with them; and the Panchayet, as an institution, is founded on the instinctive perception of this characteristic of the people. Accustomed to the broader action of a public opinion having a far more comprehensive base, we have lost sight of a normal element of the character of a purely agricultural and very poor people, much attached to their land and their neighbour village communities, but not caring a straw for any opinion beyond the sphere of the small circle, which comprehends their sympathies and interests. Starting from a higher stage of civilization and more complex relations, we have overlooked a radical difference between ourselves and the people whom we govern. Take them in their own social atmosphere, surrounded by its own checks and influences, and the cultivator of India is as truthful as any other peasant; indeed, on some points and occasions, singularly more so: but remove him from this atmosphere to one, where he feels free from the circumscribed, but all-potential, social opinion, which forms the very rule and essence of his mind and habits, and you at once strip him of the only real principles, which actuate his conduct in life. In a word our system is a failure, because it ignores the fact, that in India there is as yet no such thing as public opinion among the millions; with them local opinion is all in all.

Centralization of power is essential to our supremacy; but centralization of authority in the administration of civil and criminal justice, though often confounded with the former, is a wholly distinct affair, and is in direct antagonism to the abnormal condition of a pauper agricultural population, with whom local, and not public, opinion is the mainspring of life. Simple as this distinction may seem to those, who, like the writer, have passed years of life amid the cultivators of India, and lying, as it does, at the very root of any scheme for the due police and judicial administration of such a people as we have to deal with, yet, there are no indications that this simple elementary consideration has ever either been applied or kept clearly in view, in the course of our endeavours at internal administration. Fiscal considerations indeed forced it upon our

attention: and, in effecting Revenue settlements for the various districts of the North Western Provinces, a course was adopted more in accordance with the radical fact, to which advertence has been made. Where financial interests were at stake, we could thus be heedful to take advantage of the full influence of local opinion. The close of an article on the Settlement of N. W. Provinces, in the December number of this *Review*, gives satisfactory evidence that in financial matters we are fully alive to this elementary principle. Why lose sight of it, directly the interests of the people are alone purely at stake? Why saddle them, to the extent we avowedly have done, with a police and judicial system, which ignores the fundamental axiom, that, judicially speaking, in India local opinion is as yet everything—aye, even more than religion itself, which it often modifies, whilst public opinion is nothing, positively nothing, and therefore wholly uninfluential on the millions as a rule of private conduct? One would have thought that a common sense, matter-of-fact people, like the Anglo-Saxon race, would have not only completely seized this elementary principle, but would have been careful to apply it; and so we believe they would, had not class interest, and a concomitant but short-sighted ambition to grasp all attributes and functions of power, led to an undue attempt at a centralization, which not only fails in its ostensible, but also in its real, objects;—power being nine times out of ten,* nay we may say, ninety-nine times out of a hundred, in the hands of the Amlah, and not in the hand of the civil functionary. Aiming at the shadow, the reality is thus lost: whilst on the contrary, a system more in conformity to the elementary principle of the force of local opinion would, by stripping Amlahs and Vakils and purchasable witnesses of their noxious authority and sinister influences, not only be far more satisfactory to the country, but insure to the civil functionary far greater and more wholesome influence and authority over the people through the people themselves.

Having extended our remarks to a greater length than was contemplated, the consideration of the Home Branch of the Indian administration; of a properly constituted Court of Directors; of the Army, and of its associated departments, must be left to future articles.

- ART. IV.—1. *Ariana Antiqua. A descriptive account of the Antiquities and Coins of Affghanistan. By H. H. Wilson, M. A., F. R. S., &c. London. Published under the authority of the Hon'ble the Court of Directors of the E. I. C. 1841.*
2. *Beitrag zur Geschichte der Griechischen Könige in Baktrien, Kabul, und Indien; durch Entzifferung der alt Kabulischen Legenden auf ihren Münzen: von Christian Lassen. Bonn. 1838. Translated for the Asiatic Society. Calcutta.*
3. *Note on the Historical Results deducible from recent discoveries in Affghanistan. By H. T. Prinsep, Esq. London. 1844.*

IT is hardly more than ten years, since James Prinsep, when about to read some of his Numismatic essays before the members of the Asiatic Society, apologized for troubling them with so dull a subject, and added, that many of his scientific friends had complained of being “deluged with old coins.” Little did, either the essayist or his hearers, at that moment, foresee the grand results, which were one day to crown these seemingly fruitless labours. If they had known what the future would produce, they would have contemplated these embryo discoveries with the feelings of Belzoni, when he penetrated the Pyramids and unveiled the mummied remnants of Pharoah's line, or with the feelings of Layard, when his toilsome excavations at last revealed the Nineveh of Scripture. In awe and wonder they would have exclaimed:—

“Stop! for thy tread is on an Empire's dust;
An earthquake's spoils are sepulchred below!”

This same Society, which then grudged a few minutes attention to the Numismatic treatises of its gifted secretary, would now, perhaps, be proud to own that its fame is partially based on the services rendered to Numismatical science, and would be eager to claim the honour of having tended the infancy, and fostered the growth, of discoveries that should pour a flood of light on the darkest portion of Asiatic annals. As the Society has appreciated the value of this science for the elucidation of history, so, we hope, will the public. And we feel assured that all, who may study the coins of Indo-Bactria, will find their ideas enlarged and their trouble well repaid.

It has been the fashion to look upon Numismatics, as one of the driest departments in antiquarian study. Ever since Monkbarns, the Antiquary, was pictured by the greatest of our descriptive painters, the scoffing portion of the public have found an armoury stored with the weapons of wit, and a quiver, from

which might be drawn, at pleasure, the pointed shafts of irony, banter, and inuendo. These resources have often been brought into play for the purpose of casting ridicule upon Numismatics. Nor, indeed, can it be denied, that this, like most other sciences, has had, and may still have, some absurd accessories. There are, doubtless, in the world many coin-fanciers who gloat over rust-eaten medals of indescribable rarity, which have been grubbed up with infinite labour and cost, in order that they might be hoarded in a particular drawer of a particular cabinet. All this may, no doubt, furnish a very fair mark for the pop-guns of satire. But it surely does not follow, that the whole science is an absurdity. What branch of science, however useful and laudable, has ever been prosecuted without short-comings and errors, which excite the regrets of the educated and the laughter of the ignorant? May we not say with Sydney Smith?—"If it is fair to argue against a science, from the bad method by which it has been prosecuted; such a mode of reasoning ought to have influenced mankind centuries ago, to have abandoned all the branches of Physics as utterly hopeless. We have, surely, an equal right to rake up the mouldy errors of all the other sciences; to reproach astronomy with its vortices, chemistry with its philosopher's stone, history with its fables, law with its cruelty and ignorance: and, if we were to open this battery upon medicine, there is no knowing where we should stop."* Nor should the learned labours of the Numismatist, the interpreter and illustrator of coins, be reproached with the vanities of the mere collector of coins, who cannot divine the meaning of the relic when he has found it.

But if it be really true, that the Numismatist is not, like Peter Schlemmil, running after a shadow, but is striving, with all his faculties, to grasp a precious substance—then let us think for a moment, what this substance is, and what are the *uses* of coins.

We all know the scriptural circumstances connected with the coin, that bore the image and superscription of Cæsar. It will not be forgotten, that this coin was chosen as the aptest proof and illustration of Roman domination in Judea. It is evident that a similar use may be made of the coins of all countries. They must all give the name of the ruler and of the country ruled. The power of issuing coins and of regulating the currency is an universal attribute of the Supreme Government, be it monarchical or otherwise. The discovery of numerous coins in a particular locality, would (unless it were shewn that they

* Vide Sydney Smith's sketches of *Mora*. Philosophy.

had been conveyed there in the course of commerce) furnish presumptive proof that a certain government, or dynasty, had reigned in that locality. If the coins of another dynasty were found there, it would appear, that the one had superseded or succeeded the other. But more detailed information than this may often be gathered from the coins. They were sometimes inscribed with political or constitutional maxims, or embellished with insignia, which typified the form of Government. Nothing can be more impressive than the manner, in which a recent writer on Prophecy has identified the coins of several great empires and potentates with the mysterious descriptions of Holy Writ.* Every coin must have a superscription written in the language of the country, or of its rulers. If the language become gradually polished or barbarized: if it be modified: if it be amalgamated with other tongues: if it be abruptly altered: all these changes must be insensibly recorded on the coins. And it is superfluous to call to mind that the affinities and roots of languages are greatly relied upon by Ethnologists, to trace the origin of nations, and the degrees of relationship which subsist between the several branches of the human family. Those, who are only conversant with the unadorned and uninteresting coins, current in the British Empire during the present century, would scarcely have an adequate notion of the elaborate workmanship, which has distinguished the mintage of other countries and other times. In ancient days, religious emblems were minutely depicted on the coins. Figures of gods and heroes—the symbols of Ecclesiastical polity: of rites, ceremonies, festivals, and ordinances, were delineated with the best artistic skill that the country could boast of. Where all these points are thoroughly and accurately represented, it is needless to expatiate on the rich fund of information thus supplied, or the picture, thus presented to posterity, of the faith, manners, modes of thought, arts, and civilization of distant periods and nations. We cannot follow out this tempting subject, which would lead us into too wide a field of discussion. But, without pausing to particularize all the value of Numismatical science, we may exemplify its general utility by a familiar instance, drawn from English history.

Suppose that there were no written records of English history, and that the only memorials of the past were the collections of coins in the British Museum and other places. Let us consider how much we should know under these circumstances. We should begin by observing some barbarous coins, bearing British names. There would be little difficulty in attributing

* Rev. E. B. Elliott's *Horæ Apocalyptice*.

these to the aboriginal Britons. Next would be found a set of medals, evidently Roman, commemorating victories gained at places known to be in England. The Roman invasion would be thus indicated. Then would be seen coins, denoting the minor kingdoms, which composed the Heptarchy. The emblem of the Cross, which now begins to appear on the coins, would point to the introduction of Christianity. A series, distinct from the British and the Roman, which, by a comparison of nomenclature, could be traced to the Saxons, would indicate a foreign invasion. Every name in the Saxon dynasties would appear. The development of Ecclesiastical policy would be shewn by coins inscribed to saints, and by medals struck in the names of archbishops and bishops. Some regal coins of Danish mintage, bearing the names of Suein and Cnut, would shadow forth the advent of the Danes. Then a change would be perceptible in the names and figures of the coins. The most ordinary acquaintance with Norman affairs would enable the Numismatist to identify the figures with the family of the Conqueror. As the reigns of the several kings were followed out, allusions would be found, in the inscriptions, to the Irish acquisitions in Henry III.'s reign, and the French conquests under Edward III. This latter point would be further elucidated by an interesting series of Anglo-Gallic coins, discovered in France.* The armorial bearings, emblazoned on the coins, would illustrate the progress of Feudalism; and specimens of Baronial coins would show what power was once claimed and exercised by the English aristocracy.† The constantly occurring figure of a ship would represent the foundation of our naval power. The severing of England from the Romanist communion, and the investiture of the Sovereign with Ecclesiastical supremacy in Henry VIII.'s reign, are plainly told by the legends on the coins. Next we should learn from the inscriptions, that Scotland had been incorporated with England. The civil dissensions, in Charles I.'s reign, would be indicated by the medals struck in commemoration of the sieges which distinguished the campaigns, and by the currency of coins issued during the king's retirement to Oxford and stamped with the Oxford crown. From this time, the date of the coinage begins to be engraven. The Commonwealth, the Protectorate, and the Restoration are all announced by the legends on the coins. The Revolution of 1688, and the enthronement of a foreign prince, would be shewn by the quartering of the arms of Nassau. The "coins of the plantations," bearing such names

* Vide *Numismatic Manual*, by J. Yonge Akerman, F. S. A.

† *Numismatic Chronicle*, London.

as Massachusetts, New York, and Baltimore, would mark the foundation of our Colonial Empire.* In token of our growing naval superiority, we should find that ships and nautical devices were prominent objects, in what are called the figurations of the coins. After the time of Anne, British coinage ceases to be interesting, inasmuch as nothing more was engraven than the name and date of the Sovereign. In this rapid summary, we have not paused to sketch the national progress in arts, dress, manufactures, and general civilization, evinced by the Numismatic devices. But enough has been said to shew not only the amount of historical corroboration furnished by Numismatical science, but the amount of positive knowledge afforded thereby, whether political, economical, or chronological. The coins alone, if interpreted with skill, labour, and learning, would almost give us an outline of the leading facts of English history.

We shall further perceive the value of coins when we come to analyse the nature of historical evidence—when, following the logical method and rigorous reasoning of such writers as Paley, we examine and arrange the grounds of our credence in narrated facts. A coin indicates certain facts, which, from their nature and publicity, could not well have been misrepresented: and with which those, who stamped the inscriptions, must have been particularly acquainted. The coin has been found, and produced under circumstances, which forbid the supposition of fraud or collusion; because its meaning was not understood at the time, but was only discovered after laborious research. We will not say that all coins fulfil these conditions; but a vast number certainly do. And when they are such as we have described, a valuable corroboration is afforded to history, and a firm foundation is laid for our historical belief. There is, indeed, much truth in the saying, that coins are witnesses which cannot lie. With the corroborative weight they have given to history, they do much to disprove the dogma of the virtuosos, who said “Do not read History to me; for that I know to be false.” Let any period of history be illustrated by a complete series of coins, the discovery of which has been well authenticated; and most persons would admit that this apophthegm is a libel on knowledge. When a number of old coins are suddenly exhumed from the cavities of the earth, or the recesses of some neglected ruin, we feel, as if a host of co-temporary witnesses had risen from the dead.

History has always been considered to have two hand-maids,

* *Numismatic Manual*, pp. 352-353.

Chronology and Biography; but we think she has a third, namely Numismatics.* Moreover, if coins are useful as collateral testimony, in periods where history is full and explicit; how much more useful must they be, in periods of which we know nothing or little, and where, perhaps, that little serves but to convince us of our ignorance, and to stimulate our curiosity? Such was the period to which the Indo-Bactrian coins related: and we shall see, in the sequel, to what extent they have enlightened us. Thus, while Numismatical science must always be useful as a bulwark and co-adjutor of history, it may sometimes be indispensable as our sole guide, and our sole source of knowledge. Its vindication, therefore, rests on this broad basis, that, if the history of the human race is interesting, or useful, so are Numismatics, and *vice versâ*. Those, therefore, who declare that they derive no pleasure or instruction from Numismatics, might, with nearly equal reason, disclaim all interest in such things as Biography, Chronology, or Politics. Numismatics does not form an isolated department of learning, embracing a limited range peculiar to itself, and capable of being studied without reference to any other science. Its difficulties cannot be mastered by the mere exercise of taste, or by the dint of uninstructed talent: but varied and extensive learning must be brought to bear on the subject, and, in proportion as this may be done, so will the interpretation of the coins be successful or otherwise. This science, then, so far from being intrinsically dull and mono-ideal, is closely interwoven with all these sections of knowledge, which are most useful, most amusing, and most generally studied. It has been thought necessary to enter, at some length, into the general merits of Numismatical enquiry, in order that we might, thereby, justify the propriety of noticing the results of Indian Numismatics in the elucidation of Asiatic annals. This subject we shall introduce to our readers, by a brief narrative of the singular circumstances, which attended the discovery of the coins, that were to rescue from oblivion the history of Central Asia.

The year 1830 was a great epoch in Indian Numismatics. Coins, indeed, had been collected before that time by Messrs. Tod, Tytler and others. But they had not proved of any especial value in an historical or antiquarian point of view. No class of Numismatists had arisen.† Some private collections had been purchased by the Government on the death

* Akin to the evidence of Numismatics, and of equal (or even greater) value and interest, is that of monuments, which carries us back to an antiquity, far beyond that of any hitherto discovered coins.—ED.

† Vide Preface to *Ariana Antiqua*.

of the Collectors. The Asiatic Society of Calcutta had shewn no promise of the distinguished part, it was afterwards to play in the nurture of Numismatical science. It had a scantily filled cabinet, of which no account had been given to the world.* Even the great *savant*, James Prinsep, who was almost to lay down his life for science, and to weary out his splendid faculties in the decyphering of unknown Alphabets, had not yet learnt to take an interest in coins. In the particular department of Numismatics, which we are noticing, still less had been done. Some stray coins had been picked up, few and far between, and had been sent to Europe, merely to serve as inexplicable enigmas and to exercise ingenuity. But the winter of knowledge was now passing away and a rich harvest season was at hand.

In the centre of the Sind-Saugor Doab, bounded by the Indus and the Jhelum, and half way between Jhelum and Attock, there was a village named Manikyala. Near this village, which was distinguished for its mural and sepulchral remains, there arose a peaked conical structure, which the natives called a *tope*, or *sthupa*. In 1831, M. Ventura, the well known General in Runjit Sing's army, happened to be encamped here with a small force. Having nothing better to do, he occupied his leisure by excavating the *tope*.† The cap of the cupola was opened, and layer after layer of masonry was removed. Here and there, between the interstices of the stone, coins, chiefly of copper, were found. After the perforations had been carried to a depth of nearly seventy feet, a copper box was discovered beneath a large slab of quarried stone. It was filled with liquid, and contained a golden cylinder and silver disc. Within it and around it, were found about sixty copper coins. With the utmost liberality, the General placed his new found treasures at the disposal of the Asiatic Society and its Secretary Mr. J. Prinsep. The coins were ascertained to belong to the class, since well-known as the Indo-Scythian. At the same time, it was observed by M. Ventura's companions at Manikyala, that the ground, in the neighbourhood of the principal edifice, was studded with smaller *topes*. Some fifteen of these were excavated by M. Court, one of the officers serving under Ventura. Besides Indo-Scythic coins, there were dug up seven Roman specimens:—one of them bore the superscription of Julius Cæsar, another of Mark Antony. Such are the wanderings of a coin!

But we must now follow the movements of another la-

* Professor Wilson, however, published an account subsequently in 1831.

† Vide *Ariana Antiqua*, and *Journal of the Asiatic Society passim*.

bourer in the field of science. The existence of topes in Kabul had been observed by Mr. Moorcroft in 1820, when setting out on his ill-fated journey toward Samarkand. These observations were confirmed by Lieut. Burnes, when on his mission to Bokhara, in 1832. During the year 1834, Mr. Charles Masson, an individual residing in Afghanistan, resolved to examine a series of topes, which he had seen in the neighbourhood of Jelalabad. For this purpose, he associated himself with a Dr. Honigberger, a medical officer in the service of Runjit Sing.

These topes proved to be not only Numismatic repositories, but also religious edifices. Now, if it could be determined to what sect they belonged—then this fact would help to shew what was the State-religion of those kingdoms to which the coins might be attributable. This led to an interesting comparison of these structures with kindred edifices in the extreme south of the Peninsula and in Ceylon. And, as the object of this comparison much concerns the ethnological and political questions about to be discussed, we shall devote a short space to a consideration of the meaning and nature of these topes.*

About fifty topes were discovered at Hidda, Darunta, and Chahar Bagh. Those localities are in the vicinity of Jelalabad. They were massive structures, ranging from 70 to 150 feet in height, and from 100 to 200 feet in circumference. They consisted of a basement, or pedestal, supporting a square tower, which was surmounted by a conical top. There was generally a flight of steps, leading up to the basement, and facing the East. There were also subterraneous passages conducting from the surface of the ground to the foundations, and, in the vulgar imagination, filled with hidden treasures. The building, generally, stood on an eminence, overhanging a ravine, or water-course. The presence of running water was indispensable; and, where not furnished by nature, fresh and gushing from among the neighbouring rocks, it was supplied by means of beautifully constructed aqueducts. Though oftener separate, the topes were sometimes clustered together in a plain, as at Chahar Bagh. Near to every tope there was found an attendant tumulus, which seemed a kind of satellite to the main structure. The topes were not destitute of ornament. The superstructure, which rose above the basement, was generally encircled by a belt of mouldings, formed of bluish slate stone, which stood out in strong relief against the white

* *Vide* Memoir on the Topes of Afghanistan, by C. Masson.

painted surface. The interior was solid, with the exception of one small chamber in the centre. Within this hollow were generally found coins, and a metal chest containing relics. But both stones and relics were often scattered among the quarried stones, and even throughout the foundation below the surface of the ground. The relics were images, vases, instruments, cylinders, bits of bone, and ashes. Wherever the bones and ashes were plentiful, the other relics were scanty. The tumuli always contained bones, skulls, and ashes, but seldom anything else. Near many of the topes, there were carefully excavated caves with niches, doubtless, meant to contain idols. The relics were seldom stamped with any distinct religious symbols. But one earthen-ware seal bore a Pali inscription, which was subsequently ascertained to be a formula of Buddhistic invocation. And on one of the vases was engraven the figure of Gautama, preaching to a Buddhist nun. The coins belong principally to the Scythian kings of India; some to the Sassanian dynasty; and a few to the Roman Emperors of the East;—showing how extensive the commerce of Upper India must once have been.

The first step in the investigation was to compare the Affghan topes with those observed in other places. One tope had been examined near Benares; some near Guntur; some near Bhilsa; a great number in Ceylon, of gigantic size and finished architecture, and accompanied by caves and tumuli, there called Dahgopas; and also a magnificent specimen at Rangún. It was seen that the Affghan topes corresponded exactly with specimens existing among a people still Buddhist, and which bore unmistakable marks of Buddhist origin. This is quite enough to show what sect raised the buildings under consideration, especially as no sect, besides the Buddhists, ever claimed them.* And we have just seen that some of the relics offer internal evidence to the same effect. Assuming then these topes to be Buddhist, what was their purpose? Now there can be no doubt as to the purpose of the Ceylon topes, caves, and tumuli. The tope was the supposed burial place of one of the saintly Gautamas; the tumuli, or dahgopas, were the tombs of the saint's disciples; the caves were the shrines of his priests. It is surely, then, most reasonable to refer the Affghan topes to the same object.†

We suppose then that the topes were intended to veil the sacred remains of the Gautamas. There will be little difficulty in fixing their date. They were, probably, not prior to our æra: for they contain coins of princes, who are known to have

* The Hindus, however, used to venerate them.

† See Professor Wilson's summing up of the evidence.

reigned at, or after, that period. Those, which contained coins of Kadphises and Kanerkes (who will be hereafter mentioned), could not well have been earlier than the first and second centuries; nor those, which contain Sassanian coins, earlier than the fourth. Nor on the other hand, could they have been later than the eighth century, when the followers of the prophet began to vex the unbelievers in Kabul and Affghanistan. It will be seen, subsequently, that the Indo-Scythian dynasty, whose coins are found in the topes, reigned from the first to the third century of our era. The discovery of the topes in Affghanistan would certainly show that Buddhism had prevailed during that period in this region. It would also prove, that the Indo-Scythian princes encouraged Buddhism. This is confirmed by the fact, that Buddhist emblems appear on their coins. The few Roman medals may have been deposited in the buildings, because, not being understood—*omne ignotum pro magnifico*—they were looked upon as mysterious rarities. But such could not have been the case with the Sassanian coins, which, of course, bore emblems of Mithraism, or the worship of the elements. But what could Mithraism have to do with Buddhism? It could not be answered that its real purpose was unknown, as in the case of the Roman coins. For the Sassanian princes were, at that time, most notorious throughout Asia. As the religious and political reformers of the Persian empire, and as zealous propagandists, they had made their name universally dreaded. What then was meant by this admission of Mithraic coins into Buddhist temples? The coins explain this. In all the coinage of the Indo-Scythian kingdom, there is a palpable admixture of Mithraic, Buddhist, and Brahmanical emblems. It is clear, therefore, that the Indo-Scythians patronized all three forms of faith. What wonder then, that the religious edifices, constructed at that time, should be decked with heterogeneous symbols? Such are the curious cross rays of light, which the different departments of discovery throw upon each other. And, indeed, the concatenation of circumstances, attending these curious monuments, is wonderful. Who would have thought, that, in the North of India, there would be discovered Buddhist buildings, containing coins of Scythian kings with the names written in Greek letters, and with titles, partly Greek, partly Persian, partly Indian—or that rude imitations of the Greek Hercules and the Greek Victory, on Scythian coins, should be found in the same casket with coins, also Scythian, but blending the emblems of Mithra, of Siva, and of Buddh, and yet exhibiting Greek inscriptions? What can be a greater conglomeration than these things, of which we are

about to unfold the narrative? And yet not a mere conglomeration;—for, as enquiry proceeds, order is educed out of this seeming confusion. This meeting of all religions on the neutral ground of India was not fortuitous, but the result, as we shall see presently, of regular and intelligible mutations in systems, governments, and races.

From this digression, we must revert to the advancing course of discovery. We have seen how General Ventura and Mr. Masson discovered Indo-Scythic coins, under circumstances, which materially aided the progress of research. We have yet to see how Mr. Masson disinterred a series of coins, which illustrated the history of the Græco-Bactrians, the predecessors of the Indo-Scythians.

About twenty miles east of the modern city of Kabul, there is a level piece of table land, extending over six square miles, called the plain of Begram. The surface was strewed with fragments of pottery, metals, and sculpture. Here and there arose solitary mounds of stone and brick, which seemed to indicate the remains of human habitations. The happy situation of this plain at a spot where rivers meet, and where the main roads and mountain passes converge from all the four quarters, and the interesting vestiges visible on the surface of the ground—all this would soon shew, even to the casual observer, that here had once existed a great capital. In modern times the plain had become a sheep pasture. A vague avarice induced the shepherds to scratch up the soil in search of treasure. Soon they found seals, rings, bits of metal, and coins in vast quantities. The coins, which were principally copper, they would hawk about the city of Kabul. As these “treasure troves” became frequent, the trade began to thrive. And soon the mint-masters and copper-smiths of the city would repair to the great plain, visit the tents of the shepherds, and purchase the coins by weight. It was estimated, that about thirty thousand coins a year used to be procured in this manner, and melted down. And thus were consigned to indiscriminate destruction, myriads of coins, which the greatest academicians in Europe would have honoured with a place in their cabinets, and which might have told us more about Central Asia than all the histories that ever were written! At last, in July 1833, Mr. Masson, being engaged in searching for the site of one, among the many Alexandrias founded by Alexander the Great, happened to visit this plain. He first met with eighty coins. These specimens appearing to be valuable, he prosecuted the search, until he had amassed upwards of thirty thousand coins, of which the greater part were copper,

and the remainder silver and gold. From this collection were evolved the annals of Indo-Bactria, and the history of Greek connection with the East.

The Asiatic Society's Journal was the organ through which these results were announced to the public. Mr. Masson himself contributed a great many papers. But the most elaborate analysis was made by James Prinsep.* A great difficulty arose at the outset. The inscriptions on the obverse of the medal were Greek; but, on the reverse, an unknown character presented itself. The first object then was to decypher this character. Mr. Masson had pointed out some Pehlevi signs, which had been found to stand for certain Greek names. "It struck me," writes Mr. Prinsep, "that if the genuine Greek names were faithfully expressed in the unknown character, a clue through them might be formed to unravel the value of a portion of the alphabet, which might, in its turn, be applied to the translated epithets, and thus lead to a knowledge of the language employed." This plan was followed out with infinite labour and skill, and met with complete success. This most arduous and valuable service to science was the last, which he lived to perform.† The interest, attaching to these discoveries, was not confined to India. The news spread to Europe, and raised a sensation in the academic circles of London, Paris, Vienna, Gottingen and Bonn. The first great scholar, who took up the subject, was M. Raoul Rochette. He was followed in his own country by M. Jacquet, and in Germany by the Grotefends, Müller, and Arseth. The *Journal des Savans*, the *Journal Asiatique*, the *Vienna Jahr-bucher*, the *Gottingen Anzeigen*, and the *Numismatic Journal* of London, all vied with the *Calcutta Journal* in disseminating the results of Mr. Masson's discoveries and Mr. Prinsep's interpretations. For some time, England did less than the other two great European nations, to blazon abroad the exploits of her gifted sons in the East. But at length, in 1841, the appearance of the handsome work, of which the title is prefixed to this article, redeemed the character of the mother country. The celebrity of Professor Wilson's name in the world of Eastern literature, and his long and intimate association with Mr. James Prinsep in the Asiatic Society, give his work a peculiar value. And the Court of Directors have evinced the interest they take in this subject, by bestowing on the publication their pecuniary aid and their influential

* *Vide Journal of Asiatic Society*, Vols. I.—VII., *passim*.

† The Arianic alphabet is given in Professor Wilson's work.

patronage.* At the head of the present article we have placed this work, as being the most complete and lucid exposition of the whole subject, besides, being embellished with a great variety of beautiful plates. With it we have associated a learned dissertation by Professor Lassen, on the history derived from the Bactrian and Scythian coinage. We have also added a small but useful volume, by Mr. Thoby Prinsep, in which the general results of the Numismatic discoveries are unfolded in a brief and popular form. Besides its intrinsic merit, this work possesses an additional interest from having been composed with materials left by James Prinsep at his decease, and from having been written by his brother.

It has been already intimated that these discoveries relate to the mediæval history of Grecian Bactria. But before treating of this history, it is necessary that we should fix, with geographical precision, the limits of this somewhat undefined country. Bactria, as understood by the Greeks, was nearly coincident with Ariana, or Central Asia. Its northern boundary was the Jaxartes; its southern the Indian Ocean. The eastern boundary was formed partly by the Indus, and partly by a line drawn northwards from the sources of that river. The western frontier might be described by a line drawn from the south eastern corner of the Aral lake to the Caspian sea: and thence southward. The vast square tract thus marked off was divided into two halves by the Caucasian chain, the upper half being again subdivided by the Oxus. Above the great range of mountains are the Steppes of Tartary; below them is the desert of Gedrosia. Such was the country, which the Macedonians styled the province of Bactria.

The ancient history of this country is well known, as the birth place of some of the oldest languages and religions in the world. It was in primæval times a favoured land of fable and of song, and could boast of such names as Zohak, Ninus, and Semiramis. It formed a portion of the Assyrian and Median empires, and was eventually the scene of Macedonian triumphs. Its modern history is not less interesting, from the rise of the new Persian empire, the foundation and extension of Islamism, the sudden erection and destruction of barbaric kingdoms and the marvellous careers of Jenghiz, Timùr, and Baber. Its commercial importance had been considerable from the earliest ages, and was greater still in later times, when it was traversed by the routes, through which the products of the

* No bookseller could have afforded to publish the work with its present style and finish. The Court published it at their own expense. The bulk of the edition they presented to Mr. Masson's mother.

East and West were conveyed.* For many centuries it was, eminently, the country of great roads and vast caravans. But, between the ancient and modern periods of history, or, more accurately, between the epoch of Alexander the Great B. C. 330, and the epoch of Ardeshir Baba-jan, A. D. 230, there intervened a space of more than 500 years, which may be called the mediæval period of Central Asia. This period was almost utterly unknown; and yet was evidently worth knowing, as being the transition æra from old things to new, and the point where conflicting systems in religion and politics met together. A few hints had been gathered from the scattered notices of classical writers, themselves ill-informed, and from the vague accounts of Chinese historians. All these paltry scraps of knowledge were ably*arranged and set forth during the last century by Bayer. But his learned treatise only served to shew how little the highest scholarship could do in its efforts to pierce the impenetrable gloom.

The announcement, that the missing links in the chain of events were to be supplied, would be interesting to all students of history. But the expectation of filling up the void, by Grecian coinage of all others, was specially calculated to attract the observation of Numismatists. For no coinage in the world is more instructive than that of Greece. Its artistic beauty alone would rivet the attention of every cultivated mind. The marble and the canvas did not express all the loftiest conceptions of the Greek. The precious metals were also made to bear the impress of his genius. The mould and the dye, together with the chisel and the brush, equally became the instruments of imparting an outward form to Greek ideas. In the opinion of the Greeks, the bonds of commercial pater-nity, of political union, and of patriotic sympathy, among the numerous members of the great federation, would be strengthened, if the medium of exchange should be stamped with the marks of their common religion, of rites, games, and ceremonies, equally dear to all the states, whatever might be the differences in their constitution and Government. Nothing, therefore, can be more perfect than the figures of the gods and heroes, or the personifications of inanimate nature, engraven on the coins, which thus furnish a key to the whole mythological system and to the ritual of religious observances.

But ancient Greece is just as interesting for its multiform political developments, as for its pre-eminence in art. And here again, the coinage is a most faithful mirror of this great national

* *Vide* Heeren's summary of these commercial routes, in his "Researches into the history of Asiatic nations."

characteristic. In the inscriptions, the sacred Dèmons of Athens had its place, as well as the kings of Lacedæmon, or of Macedon. If a city enjoyed its own laws, it would assume the title of Autonomos: if a naval power, that of Nauarchidos; if a guardian of any great temple, that of Neokoros;—and so on.* Those states, that were bound together by treaties of amity, recorded the fact on the coins: either by a special inscription, or by the symbol of joined hands. There was scarcely a public office of note or rank, in any state, that was not denoted by coins. The Archons, the Ephori, the Amphictyons, the ministers of the games, festivals and mysteries, are all represented. With regard to colonial coinage, the Syracusan medallions are glorious instances of the high art attained in the distant dependencies of Greece. The geographical position of the states was also generally defined. If a city was at the foot of a mountain, or on the sea shore, the circumstance would be stated on the coins.† In the same way, there are few Grecian rivers of any importance, which were not named. But, as the Greek coins had been the mute, though eloquent, witnesses of their country's glory, in her palmy days, so also they became, in time, the sad records of her degeneracy and servility. They represented the deified Romè, and the Senate personified as a divinity: and they shewed, in the pompous titles bestowed on the Emperors, how conquered Greece could stoop to oriental flattery. Such was the coinage that Alexander the Great was to carry in his victorious train to Egypt, Syria, Persia, Bactria and India! The Macedonian mintage turned out specimens, that may be classed with the best efforts of Greek art; and Philip of Macedon lived in the period, when Greek coinage reached its climax. The coins of Macedon preserved their celebrity even in the dark ages, and served as models to barbarous nations. It is supposed, that the first rude coins of ancient Britain were struck in imitation of Macedonian specimens, that were current all over Europe.‡ If so, how boundless must have been the influence of Macedon! Alexander's successors taught the art of medallography to the Scythians, who carried it across Central Asia into the heart of India; and coins of Macedonia Proper found their way to the northern wilds of Britain, the "Ultima Thule" of the then known world. The chief divinities, figured by the Macedonian artists, were Apollo, Minerva, and Hercules. We shall find these constantly re-issuing from the Bactrian mintage: we shall see

* Vide *Akerman's Numismatic Manual*, pp. 25—28.

† Vide *Akerman's Numismatic Manual*, pp. 13—15.

‡ *Numismatic Manual*, p. 214.

with what fidelity the Greeks in Central Asia preserved, in their coinage, the style of the parent state, both as to design and execution; and we shall further observe how Grecian ideas were reproduced, modified, and gradually barbarized, as they passed away from the Greeks, and were adopted by Scythian dynasties.

We shall now touch on the history derived from the Greek coins of Bactria. On the death of Alexander, this province, esteemed one of the wealthiest in the empire, fell to the share of the Seleucidæ, and was placed under the control of a local Governor. But this viceroy soon raised the standard of rebellion. Antiochus marched against the rebels; formed an alliance with Chandragupta, the monarch of upper India (called Sandracottus by the Greeks), and ceded to him several districts of Lower Bactria—that is part of the country lying south of the Caucasian range, and on either side the Indus. But the bonds, which held together the world-wide empire of Macedonia, soon began to loosen; and the Bactrian governors, though shorn of half their dominions, took advantage of the general confusion to declare themselves independent. The kingdom thus created, embraced Bactria Proper, that is the countries north of the great mountains, and some of the countries to the south. Eastwards were the Paropamisian dominions of the Indian monarchs—a line of kings ennobled by such names as Chandra Gupta, Asòka, and Subhāgasèna. Their policy was to profit by the dissensions, which tore the Macedonian empire, and to side with whichever party had the upper hand. In this way, by helping Antiochus against the rebel Greeks of Bactria, they had regained a part of the Paropamisus. To the north were the Scythian hordes, at present tolerably quiet, but containing in themselves the elements of strife and destruction, which should one day burst upon Central Asia. On the west lay the formidable and aggressive kingdom of Parthia.* The Parthian Arsacidæ were originally Syrian subjects. Thirsting for independence, they revolted again and again. The first Bactrian prince purchased indemnity for his rebellion, by aiding the Seleucidæ against his fellow rebels of Parthia.

The second Bactrian prince reversed this policy; made common cause with the Parthians, and helped to establish the throne of the Arsacidæ. He little thought that the power, he thus raised, would one day be to his house the deadliest of rivals. Such were the circumstances and such the neighbours,

* See Mr. H. T. Prinsep's account of the Parthian coins in the cabinet of the East India House, presented by Sir H. Willock.

with which the two first kings of Bactria, both named Diodotus (Theodotus ?), found themselves surrounded. The third, named Euthydemus, had to brave the vengeance of Antiochus, who strove to win back his lost dominions in Central Asia. The Seleucidæ defeated the Bactrians in a pitched battle, and again formed an alliance with the Indians, under king Subhāgasēna, to whom were ceded all the remaining Bactrian provinces, south of the Caucasus. But Antiochus spared the kingdom of Bactria Proper, because he thought it would serve as a convenient barrier against Nomad irruptions.

The next Bactrian prince, named Demetrius, grieved at the loss of these southern Provinces, and sorely pressed in Bactria Proper by an aspirant named Eukratides, determined to re-conquer the Parapomisis, and to found there a kingdom for himself, where he might reign secure from his rival. But while he pushed his victorious arms towards the south, Eukratides pursued him from the North. Having first seized upon Bactria Proper, Eukratides possessed himself of Demetrius's Indian conquests, and again extended the Græco-Bactrian dominion to the banks of the Indus. He had now reached the limit of Bactrian power, and was the sole ruler of Ariana. But the close of his reign was harassed by aggressions from the Parthians and the Scythians; and he was at last murdered by his own son Heliokles.* Before, however, we chronicle the parricide's reign, we must pause to note some internal changes that were in progress.

Hitherto the devices and inscriptions of the Bactrian coinage had been executed in a pure style of Greek art. The figures of the divinities were tastefully engraven. The emblems associated with the main figure, the helmet, fillet, spear, tripod, bow chlamys, ægis, the Herculean club and lion-skin, were all strictly classical. The inscriptions were in polished Greek, with the characters distinctly wrought. But, in the reign of Eukratides, a square copper coinage issued from the Bactrian mints, with bilingual inscriptions. On the obverse of the coin, the legend would be in Greek; on the reverse, in a language and characters, designated by some as Arianian, by others as Kabulian. The task of decyphering and interpreting the words of this language was chiefly performed by James Prinsep. The language was at first supposed to be Zend; but was eventually shewn to be Prakrit, a rude and colloquial form of the language, so well known as Sanskrit. It there-

* It has been doubted whether Heliokles, the parricide, is the Heliokles of the coins. In this place we have followed Professor Wilson.

fore belonged to the Indian family. But the characters were evidently not Indian, being written from right to left. They seemed to belong to the Semitic class, which include the alphabets of the Phœnician Hebrew, and a form of the Pehlevi, nearly allied to these which had a local currency in Western Persia. The precise locality of this language could hardly be Bactria Proper; otherwise, traces of it would have been found in the purely Bactrian coins. From these premises, it was inferred with tolerable certainty, that the dialect belonged to the people, who dwelt west of the Indus, and south of the Hindu Kush—a race partly Indian, and partly Semitic. Such being the language, which the Bactrian princes now adopted on their coinage, it is clear that, from this date, namely the re-conquest of Lower Bactria by Demetrius and Eukratides, the Greek colonists began to cast their ideas in an oriental mould, and to domesticate themselves in their Indian possessions; to conciliate and naturalize their Indian subjects; and to fuse together the Western and Eastern elements of the body politic. It will be found also that the finish of Grecian art in the coinage begins to decline. We shall miss the dignity of the Minerva, the beauty of the Apollo with the rays of glory round his head, the majesty of the thundering Jove, the massive strength of the club-bearing Hercules, the god-like energy of the charging Dioscuri, and the airy gracefulness of the winged Victory. All this must now gradually give place to ruder devices. The elephant's head will occur more frequently than heretofore, and the Indian bull will figure on the coins. In short, the exclusive idiosyncrasy of Grecian coinage will begin to pass away.

We return to Heliokles, the last monarch, who ruled from the Jaxartes to the Indus. At this time the destinies of Parthia were swayed by Mithridates the Great. Arsacidan aggression, commenced during the reign of Eukratides, was perseveringly continued now. The western districts of Bactria having been forcibly annexed to Parthia, and the central provinces severely harassed, the arms of the invader were carried even into the Indian provinces. Some ancient historians, indeed, have included India among the Mithridatic conquests. But Numismatic enquiry would seem to shew that the Parthians did not, at this period, gain any permanent footing south of the Hindu Kush; though subsequently they formed some minor principalities in that quarter. As regards the present period, the coins reveal the names of as many kings, not Parthian, as could have reigned within the ascertained interval of time. Even professor Lassen, who attributes to the Parthians, instead of to the Scythians, the subversion of the Græco-Bactrian kingdom,

admits that these Parthians did not establish any dominion in India, or the Paropamisus. At all events these Parthian invasions, combined with constant attacks from the Scythians, made the Bactrian empire totter to its fall. Its centralization being thus broken up, the several provinces became separate, and ranged themselves under distinct sovereigns.

The coins would shew that, between this date, viz., 155 B. C. and the period of the great Scythian invasion, several synchronous dynasties of Greek origin reigned in different parts of Bactria. Hitherto, assistance has been derived from classical authorities in the composition of a consecutive history. But the coins are henceforth almost our sole guides in tracing the fortunes of these scattered dynasties. Even in the foregoing narrative, although the names, engraven on the coins, had (many of them) been previously known to fame: yet the succession both of persons and events has principally been determined by Numismatic evidence. The sovereigns of one family fortunately adopted a coinage, which, though it differed in details, yet agreed in style. The modelling of the portraiture, the emblematical devices, the dress, and the figuration of the tutelary deity, generally corresponded; just as in modern times, the armorial bearings among the members of the same family correspond. In the brief and eventful period, which intervened between the death of Heliokles and the Scythian invasion, similarity in Numismatic blazonry furnishes valuable data, by which the members of the same dynasty may be grouped together. Identity or similarity in Monograms may also supply means of distinction. The Monogram is a mark or symbol, introduced on the field of the coin. Whatever its particular signification may be, its value remains the same for purposes of identification. The Bactrian Monograms have always been supposed to be something more than mere devices. Many efforts have been made to discover their import without any decisive success. They have been variously considered, as referring to places, to person, and to dates. But it is now generally admitted, that dates are not symbolized by them. From many of them, Captain Cunningham has, with great ingenuity, deduced the forms of letters—which letters he believes to be the initials in the names of various cities and places of mintage; and thus he gathers a mass of collateral information, as to the dominions which belonged to the several dynasties. As yet, however, this interesting path of enquiry has not been thoroughly explored.* Such then are the means,

* It is no new fact in Numismatics, that Exergual abbreviations, which differ but little from Monograms, and also devices, have been employed to mark the places of

which the coins have afforded us of distinguishing the different dynasties in a period, where history is silent.

The names of eighteen kings have been classified under five dynasties. The first four were anterior to the Scythian invasion. The fifth was, probably, founded about the same time with that catastrophe, and certainly survived it. Of the four dynasties first named, two existed in upper, and two in lower, Bactria. Of the two southern dynasties, one was founded by the descendants of Demetrius. It will be remembered, that this prince, flying from Eukratides in Bactria, raised his standard in the Paropamisus. Although Eukratides overran this territory also, yet, after his death, Lysias, the son or descendant of Demetrius, regained this portion of the patrimony. His coins resemble those of his predecessor in configuration, but differ materially from them in language. Demetrius's coinage was purely Greek. In Lysias's coinage, the inscriptions are partly in the language of Ariana. The former was essentially a Bactrian prince, though, towards the close of his career, he aimed at Indian sovereignty. The latter was a Greek sovereign, reigning over an Indo-Semitic people, whose language he adopted in his Numismatic superscriptions. Hence the diversity in the coinage of two kindred sovereigns. After Lysias, Professor Wilson places a king named Amyntas and a queen named Agathokleia, whose husband has since been ascertained to have borne the name of Strato. The imagery of the coins would certainly seem to connect these persons with the Demetrian family. Beyond this, however, there is little information regarding them.

Another kingdom was founded by a prince, named Agathokles, in the provinces adjacent to the Indus.* The exact date of this event is as yet a disputed point. The coins of this king and of his successor Pantaleon are remarkable, as exhibiting, in some degree, the concurrence of Grecian and Asiatic imagery. The inscriptions are bilingual. But the Prakrit words are written, not in the Semitic characters of Ariana, but in the Pali letters of India. The divinity on the coins is Bacchus. An Indian mintage might possibly be thus devoted. Moreover, it is known, that the vine flourished in the mountainous

mintage. The Greeks used to represent the sovereign cities, which issued the coins, by the initial letters of the names : and the Romans represented their places of coinage in the same manner. The British kings used to adopt fanciful devices for this purpose. The devices, however, are so arbitrary, and in such great variety, that, without explanatory information, no consistent theory or interpretation could be based on them. Consult Akerman on this point.

* The position of this king has been much disputed : he has been assigned to several different dynasties. We have again followed Professor Wilson.

regions of that quarter : and some relics have been discovered, which shew, that the worship of the Grecian Bacchus was popular among the mountaineers, or it may have been that the Greek rulers introduced the orgies of their favourite God at the vintage seasons. There is also on the coins a figure of Jupiter, holding a three-headed Artemis, who bears a torch in either hand. In this device, M. Raoul Rochette has discerned the influence of Arianian Mithraism on Grecian mythology. In connection with this idea, we observe a somewhat elaborate female figure, dressed in the Persian, rather than in the Indian, style. This kingdom was short-lived. It was subverted by the still more interesting dynasty of Menander, which we shall advert to presently.

Of the two northern dynasties, one followed Heliokles in direct succession. It comprises the names of only two kings, Antalkides and Archebius. The imagery on their coins would seem to shew that they sprung from the stock of Heliokles. They probably reigned in Bactria Proper, and in the upper part of Arachosia, or the country lying immediately below the Caucasian range.* The other dynasty consisted of Antimachus and Philoxenus. The devices on their coins shew them to have been distinct from the other Bactrian dynasties, and, perhaps, to have imitated the design of the Syrian mintage. Their precise locality has been a matter of much dispute. The figure of Neptune holding a palm branch, and the device of the Indian bull, have been considered to indicate a naval victory gained in the southern seas, towards the mouths of the Indus.† No Numismatic specimens, however, have been discovered in those regions, which confirm this view. Indeed, the coins of this dynasty have been invariably found in more northern localities. Besides, there were so many other principalities, unquestionably founded in this quarter, that it is difficult to find space, or time, wherein to place an additional dynasty. We have followed Professor Wilson in locating them in a tract immediately above the Hazarah hills : from which post it may be presumed that they made a last stand against the Scythians.

The long threatened destruction at length arrived. Down poured the Scythian Sakas from the wilds of Siberia. The hapless empire of Bactria, dismembered by internal strife and harassed by its old enemies the Parthians, fell an easy prey to

* Such is Professor Lassen's opinion. Professor Wilson does not bring them below the mountains.

† The rare occurrence of this figure of Neptune renders it difficult to form a decided opinion. Professor Lassen, being unable to account for the fact of a naval victory in the south, has conjectured that the scene of contest was the *Lacus Drangianus*, or Aral Lake.

the barbarians in 127 B. C. The political ascendancy of Greece, which had long been waning north of the great mountains, now set for ever. The Sakas carried everything before them, till they reached the Caucasus, where, for the present, they rested, content with their triumphs.

We have only now to follow the fortunes of the last remnant of Græco-Bactrian power in the south-eastern extremity of the empire. For some years, previous to the great Scythian inroad, a prince, named Menander, had been overthrowing the petty principalities, which had risen on the ruins of the Bactrian empire, and had consolidated a kingdom in Kabul and in the provinces east of the Indus. It is supposed, with much reason, that he held the upper Doab of the Ganges and Jumna, and may have even penetrated much further, both southward and eastward. He might have shared the fate, which befel his countrymen north of the Caucasus; but the torrent of Scythian invasion was arrested, probably, by the Parthians. And thus, perhaps, the very nation, whose implacable rivalry had made the Bactrian empire defenceless against its barbarous foes, was instrumental in preserving the offshoot, which had established itself in the Paropamisus. So the branch continued to live after the parent trunk had been cut away. Many coins of Menander have been dug up in various parts of the North Western Provinces: and this, coupled with the statements of classical authors,* would go far to shew that his kingdom extended to this neighbourhood. Up to the first century of our æra his coins were current in Guzerat; and there is little doubt, that he held the Indus provinces down to the sea. The various attitudes of mortal combat, in which the coins represent this prince, would shew the many struggles and difficulties by which he attained his regal state. But, when once seated on the throne, he diffused national wealth and contentment: and tradition has handed down, that eight cities contended for the honour of conferring the rites of sepulture on his remains. To his successor have been attributed the names of Apollodotus, Diomedes, and Hermæus. But as to the position of the first two names, both in respect of time and place, serious doubts may be entertained: and it is not improbable that they belonged to some of the earlier Bactrian dynasties. In the coinage of this dynasty, the devices are for the most part purely classical, interspersed occasionally with figures of the bull and the elephant. The regal titles and the representations of the tutelary divinities are, many of them, borrowed from the Syrian mintage of the

* They assert that he passed the river Isamus. This river has been supposed by some to mean the Jumna: Major Cunningham holds that it is the Eesun.

Seleucidæ. But the coins of the last king Hermæus exhibit tokens of decline. The figures, human and divine, the emblems and the letters, become barbarized both in design and execution. And thus the coins begin to tell, in silent, but intelligible, language, that Scythian influence had reached the last stronghold of Bactrian independence, and that the traces of the Macedonian policy in Asia were fast fading away—to be lost for ever. The dynasty of Menander became extinct about 50 B. C. But before we describe the collision of the Scythians with the races of upper India, we shall pause to take leave of political Hellenism in Asia.

The Greeks had now ruled for 200 years in the very heart of Asia:—and to every thinking mind will be suggested the question, what influence had the Greeks on the Asiatics, or the Asiatics on the Greeks? It is generally considered, that, in the eastern Satrapies of the Macedonian empire, the Greek did, to a certain extent, forget the rugged customs of his mountain home, and, while revelling in the luxuries of the East, did adopt oriental manners and imbibe oriental ideas of worship. But the Bactrian Greek was an exception to this rule. The natives of Bactria differed from all the other orientals, with whom the Greeks had mingled. The climate and nature of the country somewhat resembled Macedon. The Mithraic Fire worship, the adoration of the elements, and Zoroaster's doctrine of light were, perhaps, the purest forms of faith, which the unaided mind and feeling of man had ever invented. Professor Lassen says, speaking of Bactria, "Here, if any where, Zoroaster's doctrines must have been preserved most purely: and thus, in the amalgamation of the Oriental and Hellenic character, Bactrian Hellenism must have formed from the beginning a circle in the revolution of the East." The idea of this passage is a fine one: but Numismatic enquiry does not support it, or rather tends to prove the contrary. The many hundred Bactrian coins, which have been discovered, abound in religious devices: but, with the exception of one doubtful instance, a Mithraic emblem is nowhere to be found. Neither are there any indications of Indian mythology. The figures of the gods are strictly Macedonian: and several of them, such as the Hercules, the Minerva, and the trophy-bearing Victory, the Bactrian kings seem to have borrowed from their great prototype, Alexander the Great. They would appear, therefore, not to have mingled any foreign elements with the religion of their forefathers: nor is there any reason to suppose that the native Bactrians imbibed any Greek ideas on religion, as the Scythians subsequently did. The Indo-Bactrians, that is, the people, south of the Cau-

casus and toward the Indus, certainly did not. In fact, they were more likely to proselytise than the Greeks. In India, the Sabæan, or Mithraic, religion, which, probably, had prevailed universally in the East, had degenerated and branched out into two systems, namely, Buddhism and Brahmanism, both distinguished for the power and energy of their priesthood, and both aiming at universal sovereignty, political and spiritual. The established religions of India, therefore, effectually prevented the spread of the Grecian religion to the south of the mountains. In a religious point of view then, there was, probably, no amalgamation between the Greek rulers and their Asiatic subjects: whatever union did subsist was political. That there was some such union, had been already evidenced by the bilingual inscriptions. Some of the regal titles (such as Nikè-phoros, or Soter) were much the same as those borne by the Ptolemies and the Seleucidæ. The kings, while they fully kept up the prestige of the Grecian name, appreciated the military resources of their subjects, and valued the fame of the Bactrian cavalry, as is evident from the constant appearance of the horse on their coins. That the country grew in material wealth, under their rule, is proved by the prolific abundance of their silver coinage. Their mints not only sustained the currency of Bactria Proper, but supplied the wants of the eastern divisions of their empire. The silver pieces of Bactria continued to be a medium of exchange for some centuries after our æra. And, vast as were the monetary and commercial transactions of Upper India, yet the Bactrian fund of silver coinage was so adequate, that it was not found necessary to issue any silver coinage at all in India, until after the decadence of the Indo-Scythian empire in the third century. Nor can any counter inference be drawn from the absence of gold Bactrian coins, inasmuch as the specific reason for this circumstance will be hereafter assigned. There was much wisdom in Antiochus's political principles, when he determined to spare the kingdom of Bactria, in order that it might stand as a dyke between the surging sea of Nomad invaders and the rich lowlands of Central Asia. At that time, the Scythians were hanging like a thunder cloud in the north, ready to rain destruction over the civilized east. The Parthian kingdom, at that crisis of struggle for its own independent existence, was unable to stretch forth the arm of resistance. Had the Bactrian kingdom been at that period annihilated, the Scythians would have overrun Central Asia, swept on to India, or even penetrated to the capital of the Seleucidæ. But, when at last the Scythians did prevail, the Parthians had, in the interval, gathered strength, and the Indian monarchs had steadily consoli-

dated a colossal power. Thus was the progress of the barbarians checked. Such were the benefits that Asia owed to the Bactrian dynasties, that for so many years shielded the east from desolation. And when the fated moment did arrive, the fair structure of Grecian civilization had been so well and firmly raised, that the conquerors were obliged to succumb to the humanizing influences of the conquered—an influence, the same as that which Horace declared the Greeks had exercised over the Romans also;—*Grecia capta ferum victorem cepit.*

Such were the interesting results of the extension of Greek dominion from the Caspian to the Indus. The political supremacy perished, but the moral influence survived. The dynasties, of which we must now treat, are chiefly interesting, because they used the Grecian language, adopted the imagery of the Grecian religion, and venerated Grecian art. They exhibit also the last instances, in which the symbols of Greece were blended, in the same coinage, with those of India. And thus, in the barbaric kingdoms which follow, we shall behold Greece faintly imaged, though “living Greece no more.” Yet we shall see how Greece could “brokenly live on.”

“ Even as a broken mirror, which the glass
In every fragment multiplies ; and makes
A thousand images of one that was—
The same, and still the more, the more it breaks.”

The Scythians, who overthrew the Bactrian kingdom, were urged on, not only by the love of conquest, but also by the spur of necessity. Scythia Proper was not large enough to hold all the Nomad hordes, that were congregated within it. At this period, it was a kind of political volcano. Within its bosom were stirring and heaving all the elements of mischief. At length, with a tremendous eruption, forth there issued a fiery stream of lava, that was to flow resistless over the plains of Asia. The Sakas were the first tribe, that were driven out to seek their fortune in the South. And, in all probability, these were the destroyers of the Bactrian empire. The ancient records of India, when collated with the Chinese and classical histories, leave little doubt that these Sakas—after they had subdued, first Bactria and subsequently the Soter dynasty (of Menander) in the Paropamisus, and had brought all upper India under their dominion—were eventually overthrown by Vikramaditya, king of Oujein, in B. C. 56. This monarch, who is a hero-divinity with the Hindus, was surnamed Sakari, or the foe of the Sakas. But either he, or one of his successors, was forced to yield to the Yuchis, a second tribe of Scythians, still more powerful than the first. These Yuchis founded a most

important kingdom, generally styled the Indo-Scythian. In determining the time and place of these Scythian invasions, much assistance has been derived from the Chinese annalists and travellers. It may appear strange, but it is, nevertheless, true, that Chinese literature has been found of great practical utility in these respects.

It should be added, that a series of Indo-Parthian coins have been found, which would shew that, for a brief space, some Parthian princes must have ruled in the direction of the Paropamisus. In all probability, when the Bactrian empire was despoiled, they managed to seize a moiety of the plunder. We shall then first dismiss this line of Parthian kings; and then, passing on to the Scythians, we shall commence with the Sakas, and afterwards proceed with the Yuchis.

Doubts have been already intimated, as to the Parthians having acquired any Indian dominions at an early period. The dynasty, of which we are about to speak, are certainly Parthians, both in name and in style of coinage. The inferiority of the characters, in which the Greek inscriptions are engraven, would shew that the coins belong to the later and declining period of Græco-Asiatic mintage; and the Arianian inscriptions on the reverse would mark an Indian locality. Various attempts have been made, with indifferent success, to identify the first prince Vonones, with personages of that name, who figure in the Arsacidan history of Parthia. The coins of the third prince, Gondophares, are distinguished by a peculiar Monogram, in which Professor Wilson discerns a letter of the Sanskrit alphabet. Ecclesiastical history corroborates most singularly the Numismatic evidence regarding this prince. Saint Thomas is said to have received a divine commission to visit the Indians, who were ruled by a prince named Gondoforus.* The coincidence is somewhat striking. Another prince, styled Abagasus on the coins, is connected with Gondophares by uniformity of Monogram. There are several other princes included in this dynasty. But we do not know enough of their reigns or their policy, to make them interesting. And thus, we must close our account of this distant Indian offshoot of that dynasty, which the name of Mithridates has rendered famous in Roman history, and which was remarkable among the kingdoms of Macedonian origin, from having been finally subverted, not as Bactria, by barbaric invasion, nor as the Seleucidan and Ptolemaic kingdoms by the irresistible progress of Roman conquest, but by

* Sharon Turner's history of the Anglo-Saxons. Note to p. 147, vol. II., quoting a Saxon Life of St. Thomas, to be found among the Cottonian manuscripts. This passage was pointed out to us by a friend.

the zealous onset of religious fervour, by the enthusiastic vigour of Ardeshir Baba-jan, the perpetuator of the Magian tenets, the renovator of the Sabæan and Mithraic religions. And while we treat of the Indo-Scythian dynasties, and reflect how Buddhism and Brahmanism (both offsprings of Mithraism) grew up under the shadow of Greek civilization, till they overspread the extreme East, we should not forget that a great day was at hand for the common progenitor of both; and that Mithraism was to be reinstated in the "high places" of Central Asia.

Our view must now be turned towards the Saka-Scythians. In the earlier coins of this class, the letters can hardly be decyphered, being rude imitations of the Greek: and the names are frequently illegible. The three first names given in Professor Wilson's list, namely, Spalaris, Palirisus, and Mayses, we shall pass over summarily; merely remarking, with respect to the two former, that they are placed by many Numismatists among the Bactrian princes; and regarding the latter, that it corresponds with Mâos or Mâs, which Professor Lassen shews to be of Mithraic origin. We then come to the interesting set of coins, which bear the name of Azes. This prince must have been the greatest, that had appeared in Asia since the days of Alexander. The extension of his rule to the frontier of Central Asia has led many to suppose, that he was of Indian origin. He certainly does sometimes figure on the coins in an Indian attitude. But no Buddhist or Brahmanist emblems are associated with him. Whether he be Indian or not, the Chinese theory, which identifies him with Asoka, or Ayu, is decidedly wrong. On the other hand, some of the best authorities, such as Lassen, conclude him to be Scythian. The figure of the mounted king (a Szu, or Saka device, according to Lassen) and the general aspect of the types would certainly favour this supposition. And it is improbable, that an Indian ever could have reigned north of the Caucasus, as Azes certainly did. His coins were found, chiefly, in the neighbourhood of Peshawar and in Afghanistan, also in various parts of the Punjab, but not lower. They are numerous and greatly diversified both in type, device and monogram; and they are generally executed with much precision and completeness. The inscriptions are in Greek and in Bactro-Pali. The imagery is drawn from Grecian mythology. Beyond this, there are no religious emblems. There are no devices, that could represent Mithraism or Hinduism. The most important coins are those, which indicate the extent of his empire. There is the Bactrian camel,* the Indian lion

* See Professor Lassen's able interpretation of these emblems.

and elephant, the bull of Kabul. There is also a remarkable device, which represents Neptune trampling on a swimming figure. This has been confidently referred to victories gained in the vicinity of the Indus. Connected with the coinage of this prince, are some specimens, bearing the superscription of Azilises, who was, no doubt, a kindred sovereign—whether successor, or predecessor, is uncertain. Belonging to the same series are a most numerous set of coins, displaying the title of “Great king of kings, the Preserver.” One emblem of this set represents a male figure in a long robe, with a cap and fillet, and the right arm stretched over a fire altar. This is interpreted as an evident allusion to the Magian religion. These coins have been found in the very heart of India, at Benares and at Malwa. The nameless title has, by some, been referred to a confederation of states. But it was, probably, the generic name of a line of kings.

The coins, then, show that there arose, upon the ruins of Bactria, a barbaric empire of Saka-Scythian origin, professing a mixed religion, composed of Mithraism, Hellenism, and perhaps Hinduism—an empire, that stretched from the confines of Tartary over the Caucasian range, and thence, centring itself in Afghanistan and the Punjab, reached down to the mouths of the Indus—spread eastward, over the plains of Hindustan, to the confluence of the Ganges and the Jumna—and, southward, over Rajputana to the Vindhyan range of Central India. But for the coins, what historical speculatist would have dreamt of this? In fixing the dates of this dynasty, we must remember, that it came after the first Scythian invasion, and before the second, by the Tokhares, or Yuchis. It is well known that the Indian king, Vikramaditya, defeated some Saka power. And it may be inferred with tolerable certainty, that these must have been the Sakas so defeated. Then, if this be so, the date of their overthrow may be deduced with precision, for the era of Vikramaditya has been placed beyond doubt.* What became of the Sakas after their Indian defeats, neither history nor Numismatics inform us. It cannot be supposed that Vikramaditya pursued them into Bactria Proper. But whether they maintained their power in that quarter, or yielded to some other Scythian swarm, is unknown—a point too dark even for conjecture. That the Sakas, however, were succeeded in India, after no long in-

* It is unfortunate that Archæologists have not been able to connect Vikramaditya with any one of the several kinds of relics, whether coins, or rock-inscriptions, or pillars; while they have succeeded to so great an extent in establishing the position of Chandra Gupta and Asoka.

terval, by the kindred tribe of Yuchis, or Tokhares, may be regarded as an historical fact. They could not have followed in direct succession, inasmuch as it was Vikramaditya, who overthrew the Sakas. But it is known that the kingdom, which his spirit and patriotism had founded, fell into confusion after his death. And it is most probable, that the Yuchis took that opportunity of usurping his throne and power, and of raising up a great Indo-Scythian empire. We shall, henceforward, hear no more of Bactria Proper; our attention will be confined to upper India, including Afghanistan and the Paropamisus.

The coins of the Yuchi, or Indo-Scythian, dynasty have been discovered in vast numbers. They are entirely gold and copper. There is only one silver specimen in the whole set. Now it has been already stated, that the Bactrian coinage was entirely silver; while the Indian coinage was entirely gold and copper. When we consider that the two countries were con-terminous, and that commercial intercourse and monetary exchange largely subsisted between them, it can hardly be regarded as a fortuitous circumstance, that, in one country, the more valuable coins should be nothing but silver, and, in the other, nothing but gold. It was not that the Indians never availed themselves of a silver currency; for, as was previously mentioned, the silver pieces of Bactria were current in India for some centuries after our æra; so numerous were they, that it must needs be concluded that the Bactrian rulers made special provision for the monetary requirements of India, and augmented the silver mintage accordingly. Why then did the Bactrians follow this policy? some reason there must have been. A reason is supplied by the author of the *Periplus*, who says, that the silver denarii were exchanged with advantage against the gold kaltes of India.* But, when the Bactrian pieces became obsolete and fell out of circulation, and the resources of silver currency thus began to fail, the Indians introduced a silver coinage of their own. Towards the decline of the Indo-Scythic power, and the accession of the great Gupta dynasty, the Satraps of Guzerat† and the Gupta sovereigns of that region coined beautifully in silver, while the coinage of Kanouj, the then capital of northern India, continued to be gold. The monetary remains of the Indo-Scythic epoch seem to shew that this was a period of national wealth and commercial activity. That there was a brisk demand in the money market and the bazaar, is evinced by the

* On this point consult *Wilson's Ariana Antiqua*, and *Cunningham's Numismatic Tract*.

† *Vide* "Saurashtra Coins," by E. Thomas, Esq. B. C. S.

immense issue of copper coins. The pice of the Indo-Scythian Kadphises and Kanerkes were current in the Hindu kingdoms of upper India, and remained in circulation till the Muhammadan invasion. But, besides difference in metal, there will be observed other important changes in the specimens of the coining series. They cease to be bilingual. The coins of Kadphises, the first king on the list, form a single exception to this rule. The Arianian, or Bactro-Pali characters (of which so much has been said) are no more to be seen; the Greek Alphabet alone remains. Heretofore, in each series, Greek mythology has supplied a goodly portion of the imagery: but henceforward that also disappears. Greek art is passing away; but the court language and the fashionable orthography are still Greek. It has been already stated that the general features of the coins, and the localities in which they have been found, prove beyond a reasonable doubt, that this kingdom comprised upper India, that is the tract of country between the junction of the Ganges and Jumna and the Western extremity of the Paropamisus. The first king was Kadphises. Some of his coins were first discovered at Mathura (Muttra) and Allabahad. But the figurations had become indistinct from long friction, and the letters of the inscriptions could not, at that time, be decyphered. These specimens remained therefore unintelligible, until they were compared with the more recently discovered coins. A great number of fellow specimens have been dug up in Kabul and the Punjab. The king's dress and the cast of his features are unquestionably Tartar, or Scythian. In one coin, he appears worshipping at a fire-altar. In some coins, the Hindu Shiva is represented with his usual attributes, and his attendant bull, bedecked after the regular fashion. On the reverses of the coins (as we said before) the Arianian characters are seen for the last time. • There are other coins bearing the same name: but, on account of dissimilarity of device, they are conjectured to belong to another Kadphises. It is agreed on all hands, that he was not the only one of his race, who bore this name; and that, at all events, other kings must have intervened between him and the monarch, we are now about to notice, namely, Kanerkes. That this king was of a different lineage from Kadphises, seems clear from the absence of bilingual inscriptions, and an additional set of honorific titles derived from the Magian vocabulary. But general uniformity of design and monogram, and identity in place of discovery, would show that both princes belonged to the same race and the same kingdom. On some of the Kanerkian coins, there appears the figure of the Sakya Sinha, one of the Mūnis or patron saints of Buddhism, in a

preaching or benedictory attitude. Major Cunningham considers* that he has got a coin of this king, in which the aspect of the figure is eminently Buddhist, and with an inscription, which he decyphers as an invocation to Budha. This prince has also been identified with Kaniki, or Kanishka, a king known to Cashmerian history, and a zealous Buddhist.†

The coins of the next king, Kenorama, are in much the same style as the preceding. But the constant occurrence of the elephant would seem to denote the consolidation of the kingdom in the interior of India. Neither is there any thing that calls for especial notice in the coinage of the next king, Oerkes, except that his dress closely resembles the vestments of the Sassanian kings of Persia, as depicted on their coins. There is a fire altar plainly represented in the coins of the next king, Baraoro. The regal head dress is unquestionably Sassanian.‡ We next come to a set of coins, inscribed with the name, Ardokro: whether it belonged to one, or to several monarchs, is uncertain. Their principal type is a female, sitting on a high-backed throne, and holding a cornucopia.§ The recurrence of this type in the Gupta coins of Kanouj (and it will be remembered that the Guptas succeeded the Indo-Scythians), associated with regular Hindu inscriptions in Sanskrit, marks the Ardokro coins as the last of the Indo-Scythian series, and as belonging to the transition period, when the last vestiges of Bactrian influence and Grecian civilization were fast fading from our view to be seen no more. From a comparison of the respective types and monograms, James Prinsep has pronounced the Indo-Scythian to have been the original model of the Kanouj coinage. And thus Indo-Scythic history may, perhaps, explain the Rajput tradition, which declares the founder of the Kanouj race of Rahtores to have been a Yâvan, or Greek, of the Asi or Aswa tribe. A Bactrian chief was, no doubt, meant. The tradition, however, is only useful as showing that Indian tradition preserved the remembrance of dominant races, who had come down from the north. It cannot have much historical significance: for the Rajput bard forgot, or ignored the fact, that it was the comparatively low caste Guptas, and not the high-born Rahtores, who drove back the Indo-Scythians. In Surat also, the southern extremity

* *Numismatic Tracts*.—J. A. S. Bengal.

† See J. Prinsep's account of this king in the *Journal of the Asiatic Society*; also Cunningham's *Treatise on Kashmerian coinage*—*Numismatic Chronicle*, Vol. VI., (1843.)

‡ *Vide* Wilson's *Account of the Sassanian coins*.

§ Lassen has observed that the Saka kings are generally represented as mounted, and the Yuchis seated in a chariot, or on a throne.

of their empire, the Indo-Scythians left their Numismatic devices to be imitated by their successors.* These Numismatic coincidences, while they prove what James Prinsep called "the Indo-Scythic paternity of the Kanouj coinage," are still more valuable as establishing the consecutive order of events.† The later history of Kanouj is detailed in genuine and authentic narratives, and may form a sound basis on which to raise a structure of Numismatic facts. If, therefore, the connection of the Kanouj coinage with the Indo-Scythic, and the connection of the latter with the earlier Scythian, coinage, and again the connection of this last coinage with the Græco-Bactrian and the Macedonian (when we again meet the domain of history) be all made out, as we trust it has—then something has been done to evince the fidelity and trustworthiness of Numismatic enquiry, and to vindicate, in legal phrase, the "admissibility" of the coins as evidence.

By this time, that is, the beginning of the third century, a race of Gupta chiefs had arisen. They expelled the Indo-Scythians: and, having thus rid themselves of foreign domination, they founded a kingdom, which extended from Nepal to Guzerat and from Magadha to the Paropamisus. And thus Hindu supremacy was restored in the north of India, where it had not been known since the days of Chandragupta and Asoka.

But before this Indo-Scythic dynasty is finally dismissed from our consideration, there are one or two questions, connected with the religious emblems of their coins, which merit a brief discussion. What, for instance, meant the Mithraic emblems? how and from whence did they get to India? Elemental worship was the original faith of Central Asia. It is known by the several names of Magian, Sabæan, and Mithraic. This superstition, in itself purer and simpler than other forms of heathenism, soon became corrupted, and degenerated into a mythology, the most stupid and senseless of all.‡ As the religion spread, a number of strange names and epithets were incorporated into the sacred nomenclature, and the deified heroes of neighbouring nations were allowed the honor of apotheosis in the Mithraic Pantheon. But this Persian mythology, though it no doubt was venerated in the homes of the people, does not appear to have been more than tolerated by the successors of Alexander. As far as we know it was not politically encouraged,

* See "Saurashtran Coins."

† See *Tod's Rajasthan*—Connection of the Rajputs with the Scythians, Chapter I. and VI.

‡ See Malcolm's Account of the process of corruption in the *History of Persia*.

and it certainly did not receive the allegiance of the kings. When the Greeks lost their political power, the barbaric conquerors at first adopted the Grecian, and not the Magian, mythology. And thus for many years, the Greek religion continued to be fashionable. The Yuchis, however, rejected the European, and adopted the Asiatic, mythology. But when established in India, they deemed it politic to encourage the two prevailing religions of that Peninsula, namely, Brahmanism and Buddhism—which were after all only offsprings of the parent Mithraism. Hence it was that the emblems of Shiva, of Budh, and of Mithra, appear together on the Indo-Scythic coinage. We will first notice the names and figures, characteristic of Mithraism.*

The titular terms Miro, Mioro, or Mithro, attached to the regal names of the Kanerkian dynasty, are identified with the word Mithra, the Zendic name for the sun. This famous word, which has given a name to the Mithraic religion, re-appears in Persian as Mihir, in Sanscrit as Mitra and Mihira. But in these two languages, it is only one name for the sun out of many: whereas the original Mithra means the one sovereign sun, and corresponds with the Hèlios, also found on the coins. He is seen in a flowing dress, with light radiating round his head. The Deus Lunus of Asia Minor appears on the coins under the Zendic name of Mao and Manao Bago, corresponding with the Sanscrit word, Mas. The figure resembles that of the sun, only instead of the rays we have the lunar circlet. In connection with this divinity, the coins give the name of Nanaia, Nàna, and Nàna Rào. This goddess, a tributary of the moon, is the triple faced Artemis of Agathokles (the Bactrian king), the Anaitis of the Persians, the Anaia of Armenia, the Bibi Nànì of the Muhammadans.†

Next we have Athro on the coins, the peculiar god of the Ignicolae, the personification of fire. The figure is encircled with the sacred element, and the hair seems to wreath itself into flames. The name is also Zendic, and agrees with "Atars," Fire. The word "Oado" on the coins has been identified with the Zendic "Vato" and the Persian "Bad," Wind. Two words "Okro" and "Ardokro" have not been satisfactorily explained. The "Ard" has been reasonably conjectured to be the common prefix "Arta," Great, as in Arta Xerxes. Another name, "Pharo," on account of the similarity of the figure to which it is attached, has been supposed to be an epithet of the sun.

* See Lassen's interpretation of these names and figures.

† Wilson's *Ariana Antiqua*.

Now, it must be steadily borne in mind, that *all* these names are written in the Greek character. Thus was the Greek language made the medium, by which the people of India were to learn the sacred terminology of the Persian Zendavesta. Until the discovery of the coins, no three things could be more separate—more irreconcilably disconnected—than this language, this people, and this religion. But now the coins have brought these three together! And, thus corrupted, Mithraism was to run its course, not only in Ariana, but in the Indian Peninsula. It was soon, however, to be driven out from the former by the Sassanian descendants of the great reformer, and from the latter by the Guptas.

The blending of Brahmanist symbols with the pantheistic imagery of the Indo-Scythians needs not excite surprise; but the admission of Buddhist emblems may suggest a few observations. For some time Buddhism was denied its proper place in history. It had the misfortune to be overthrown by a system, in which historical mendacity in support of religious tenets was held to be a cardinal virtue.* The Brahmanists, having established the most complete civil and ecclesiastical polity, and elaborated a polished literature, were reluctant to admit that there had been such a thing, as a Buddhism, which once ran Brahmanism very hard in the race of dominion. But the veil was gradually withdrawn. Chinese literature gave forth its stores of information. Accounts came pouring in from Burmah, Thibet, Nepal, Ceylon. The earth and the mountain yielded up their monumental treasures. Caves were penetrated—relics dug up—rock inscriptions decyphered. The writings on the Delhi and Allahabad pillars were read. The coins began to tell their story. As our knowledge of the dynasties, which ruled in upper India and Kabul, began to increase, the works of several Chinese travellers, who visited India during the first five centuries of our æra, were critically examined.† The correctness of their Geography and the general truth of their statements were remarkably verified by the relics and the coins, which have formed the subject of the present treatise. From all this evidence, some scholars have believed that the Pali language was current, and the Buddhist faith dominant, at a

* We do not of course mean to say that Buddhism was not mentioned in Sanskrit Literature, but only that its position was not duly described.

† We need not give the names of these travellers. The accounts of their travels were most elaborately commented on by Remusat, Klaproth, Burnouf, and others. The work of the principal traveller, Fa Hian, having been translated into French, was again translated into English by Mr. Laidley of Calcutta.

time, when the polished form of the Sanscrit was unknown, and when Brahmanism could not raise its head.* Without going so far as this, and without claiming any undue antiquity or pre-eminence for Buddhism, we may safely say that for sometime, it was at least co-extensive with, and at one epoch, superior to, Brahmanism ; that it extended as far north, and was probably carried into Indian kingdoms beyond the Indus and below the Caucasian range—countries, whither Brahmanism perhaps never penetrated ; that some of the most illustrious Hindu monarchs were its disciples—monarchs, who made treaties with Antiochus the Great, and kept the Bactrian Greeks at bay ; and that it took its place, side by side with Brahmanism and Mithraism, in the adoration of the Indo-Scythians, we have already seen. And this fact was further strengthened by Captain Cautley's exhumation of a Buddhist city at Behar, near Scharunpur. Among the ruins were discovered, not only a series of Indo-Scythian coins with the Buddhist symbols, but also a collection of undoubtedly Buddhist relics. The discovery of Indo-Scythian coins in the Buddhist topos of Affghanistan has been already described.

With the extinction of the Indo-Scythian power will close the historical drama, allotted to this article. However incomplete our treatment of the subject may have been, we trust that, at all events, the history itself has been proved to merit attention. It has been seen that Numismatics has exhibited the history of three great nations, the Græco-Bactrian, the Bactro-Scythian, and the Indo-Scythian. The coins have shown how the Greeks consolidated their power, and extended it to the furthest East ; how they preserved their religion, arts and civilization in pristine purity, and yet cemented the bonds of political union with their Eastern subjects ; how they led on their people in the onward course of commercial activity and national prosperity ; how they held the barbarians in check ; and how, weakened by internal strife, and struggling with their rivals, the Parthians, they fell an easy prey to the Scythians. The coins have shewn how the Bactro-Scythians raised a vast, but short-lived, Empire, at one time, greater even than the Græco-Bactrian ; how they borrowed the arts, policy, language, and religion of the Greeks ; how at the same time they engrafted on this noble stock, the mythology and the forms of oriental worship. Lastly, the coins have shewn how, on the expulsion of the Bactro-Scythians, a kindred race of Indo-Scythians seized the southern and eastern portions of the old empire ; how they augmented the material

* See Colonel Sykes' treatise on the religious, moral and political state of India, before the Muhammadan invasion.

wealth of monetary currency of this new kingdom; how they adopted and blended together the ideas and the superstitions of the three great sects of orientalism, but still retained the Greek, as the classical language of the court and the state. Such facts as these History had not shewn, and, unless new materials should be discovered, never could shew. Besides these points, on which coins alone have furnished the main body of the evidence, they have supplied a mass of collateral and supplementary information regarding the origin and growth of some of the oldest eastern languages and the most potent eastern religions. Those, who imagine that this picture is overdrawn, we must refer to the many learned and elaborate treatises, both English and continental, alluded to in the foregoing pages, and to the plates, with which most of the works are embellished, and by means of which the reader may judge for himself, whether the inferences drawn from the coins are just and fair, or not.

It must not, however, be concluded that the Numismatists of India are resting on their oars, or are content with the archæological trophies already won. There are, we doubt not, many acute and accomplished minds still labouring to throw additional light on the facts of this history. Not a year passes away without some circumstances being adduced in confirmation, addition, correction, or illustration. Much has been done in the way of correction. The position of individual kings, and even the dates and localities of particular dynasties have been occasionally altered; but the cardinal points of the narrative, the nature and extent of the several kingdoms, the succession of races, languages and religions—all this has stood unassailed and unimpeached throughout the ten years of Numismatic scrutiny. And it is upon *these* points that we have endeavoured to dwell, rather than upon points of minor importance, which cannot be fixed with absolute certainty, and which do not affect general principles or theories. Much has also been done in the way of corroboration. And few portions of the subject have been more strengthened than that which relates to the geographical extent of the several kingdoms, both classical and barbarian, which existed in upper India. The tendency of recent discoveries has been to shew that Kabul and the Punjab formed the pivot, on which often turned the fate of Central Asia and of India. It is, indeed, no newly discovered fact that this region has been to Asia, what the Netherlands were to Europe, the arena of incessant contest between the different aspirants to universal dominion. But for aught that history told us to the contrary, we might have supposed that it enjoyed

a respite from contention during the long interval between the invasion of the Greeks under Alexander and of the Mussulmans under Mahmud. The coins, however, shew that during this period also, it was as sharply contested for, as it ever has been subsequently ;—that it was the battle field, not only of ambitious autocrats, but also of races, religions, and opinions ;—that it was the scene of such contests, as might be anxiously looked upon (to borrow the Homeric notion) by the gods of Greece, by the Hindu Triad, by the Gautamas of Buddhism, and by the elemental divinities of Zoroaster.

Nor must it be supposed that Indian Numismatics stop here. We have only traced the History of India for six hundred years. But the coins, to use Professor Wilson's words, have followed the destinies of India for two thousand years. Following the Indo-Scythian dynasty in close order, there come several series of Hindu coins, which explain much that was obscure in the Ante-Muhammadan period of Indian history, and which conduct us down to the epoch of Muhammadan conquests. Then, following the tracks of authentic history, the coins accompany us through the periods marked by the several Muhammadan dynasties, and by the different policies, which they pursued ;—until at last there appears a coinage, which has spread even further than the Macedonian, which heralded a civilization higher than that of the Greeks, and which belonged to an empire greater than that of Alexander. These subjects may perhaps be treated of in a future article : but we shall not touch upon them at present, inasmuch as we have confined ourselves to the limits of Greek dominion and influence in the East.

- ART. V.—1. *Transactions of the Medical and Physical Society of Calcutta.* 1825-43.
2. *Reports of the Commission for enquiring into the state of large and populous districts.* London. 1844.
3. *Report of the General Board of Health on the epidemic Cholera of 1848-49, with appendices.* London. 1850.
4. *Act X. of 1842. An Act for enabling the inhabitants of any place of public resort or residence under the Presidency of Fort William, not within the town of Calcutta, to make better provision for purposes connected with public health and convenience.* Calcutta Government Gazette, 14th October, 1842.
5. *Act XXVI. of 1850. An Act to enable improvements to be made in towns.* Calcutta Government Gazette, 21st June, 1850.
6. *Report on Small Pox in Calcutta, and Vaccination in Bengal.* By Duncan Stewart, M. D. Calcutta. 1844.
7. *Report of the Small Pox Commissioners appointed by Government, with an Appendix.* Calcutta, 1st July, 1850.
8. *Medical Report on the Mahamurri in Gurhwal in 1849-50.* By Dr. C. Remy, Superintending Surgeon. Agra. 1851.
9. *Suggestions for the extension and perfection of Vaccination, simultaneously with the systematic study of epidemic and endemic diseases in India.* By J. R. Bedford, Assistant Surgeon. Calcutta. 1851.

WHILST civilized man, throughout the world, has brought his highest faculties to bear upon the adaptation of natural products to his wants and wishes; whilst sage and savage, each in his own degree, have separately, from the earliest ages, toiled to find a remedy for bodily disease, the heritage of their common fall;—the conviction, amongst educated nations, of the possibility of, not alone subduing, but actually warding off, its inroads, is but newly awakened; and, even now, the question of its truth trembles in the mental balance of not an inconsiderable number. It is ever the law of mind to disbelieve all evils imperfectly understood. Sanatory Reform labours under the disadvantage of dealing with mal-influences, which speak not for themselves, but require to be long and sedulously studied, ere their distinct and undeniable relation to disease be recognized. Now that the light of full intelligence is breaking on the public mind, the ignorance of past ages is inexplicable. Air, light, and water, the very elements of life and health, have been systematically, it would appear, excluded from the doomed inhabitants of large cities; whilst plague and pestilence, sweeping

away their tens of thousands in the prime of life, have come in vain, as far as any practically operative warning was concerned. Civilization, unaccompanied by sanatory knowledge, has played an evil part. The high pressure of commercial activity in England, combined with want, has forced into the industrial classes a child-population, who, instead of obtaining purity of mind and healthiness of body in open fields, have been condemned to doubtful companionship, to weakened power, retarded growth, and imperfect development of mind and body, by a system of precocious labour in close unhealthy factories. Nor does the evil end with this: a deteriorated race begets a like progeny; and thus, by slow degrees, the stout yeoman, filtered through successive generations, rises to the surface a crippled mindless man.

If the injurious conditions, we have thus so lightly touched upon, be fatal to life and health in ordinary times, how must their influence become enhanced, during any epidemic constitution of the air—when the angel of death hovers above and around us, thrusting his fiery torch into every spot, in which the neglect of nature's laws has suffered to accumulate the fuel appropriate to its flame! If this be true of England, where with happily rare exceptions, a wide spread pestilence is now unknown, and where a recently awakened Government, aided by scientific minds, is putting forth all its strength to crush the Hydra, what shall we say of India, our present theme—a land where death rides rampant, trampling an untold number of victims beneath his courser's heels, with each successive year? Here no breathing time is given. Epidemics prevail at all and every season, sometimes acquiring a maximum of destructive power, at others sinking to a point, which, still in western nations, would be viewed with horror and afflict. And how has this been remedied? What steps have been taken to protect the people over whom we rule, to save ourselves, and to circle with a fence those, whose lives are dearer to us than our own, against the fell destroyer? Absolutely next to nothing. With the exception of Calcutta (for we limit our remarks to the presidency of Bengal, although little doubting their applicability to the subordinate Governments), our Indian towns remain unchanged, from what they were two thousand years ago.

Deeply impressed ourselves with the truth of all that has been urged by sanatory writers, we cite their testimony, in conjunction with our own experience, to impress upon the rulers of this land, the absolute and urgent necessity of putting into force, without delay, a system of reform, which shall gradually purge the country of physical ills. A more ex-

tended knowledge of the subject will demonstrate, that these are not confined to Hindustan, but constitute a nucleus and nursery for that plague, which never dies with us—the Cholera—and which seems destined, whilst we remain indifferent, to burst its bounds with each decade of years, and roll a flood tide of death and desolation over Europe, than which the lava-stream of thousands of volcanoes would be less destructive.

The Acts, which we have placed at the head of our article, prove that the legislature is not indifferent to the welfare of that great section of the human family amongst whom our lot is cast. Eight years ago gave birth to the first in order. This, owing, it is said, to difficulties in its operation, which, we fervently believe in some cases, are but another expression for the apathy of the local executive, has, with one or two exceptions, never been brought into force throughout the length and breadth of India. Such apparent failure in legislation demanded a second attempt; and such, much to the credit of Government, and in proof of its continued interest in so vital a subject, was made in 1850, when Act XXVI. saw the light, the previous one being simultaneously repealed. How far the new provisions are calculated to effect the object sought, we shall hereafter inquire, merely remarking, *in limine*, that legal facilities for such a reform are useless, unless combined with an inclination on the part of the public, both European and native, to avail themselves of the law. Of what the Indian public of a Mofussil town is composed, and how likely it is to avail itself of any measure involving taxation, our eastern readers need not be informed; and our English ones may guess, when we assure them, that on several occasions, within our own experience, a meeting of native Mofussil gentlemen got together, with some difficulty, for the express purpose of considering Act X. of 1842 above referred to, have one and all declined having any thing to do with it, when it was understood that its adoption, even though accompanied by the most important improvements, was likely to involve them in the slightest pecuniary contribution. Under these circumstances, it becomes doubly imperative upon official European residents, to give a mental impulse to their fellow-townsmen, to lead the way, and not to await the spontaneous efforts of those, who, in regard to knowledge of requirements for the public health, must of necessity be very ill-informed.

To bring home the necessity of Sanatory Reform to the heads and hearts of all, we have deemed it well to consider

the movement, in conjunction with epidemic disease—a form of malady only too familiar to us exiles of the East, and which may yet, unless we be warned in time, rob us of those, for whom life is most cherished. The subject appeals to no one class alone, but is of world-wide interest. To neglect it, is only equal to the inconceivable madness of a squatter in the far western wilds, who should omit to close and bar his door, when howling savages prowl around his dwelling, thirsting for blood. We tell those who shut their ears in wilful ignorance to our appeal, that Cholera, Small Pox, and Fever, are the wild and howling savages of medicine, the more dreadful, because no bars or bolts exclude them. In either case a remedy is to be found by eradicating all hiding places for the foe. As civilization converts the forest into a smiling plain, studded with fields and man's abodes, so does sanatory science proscribe the reeking drain, the filthy cesspool, and the crowded dwelling, which serve as hot-beds and manufactories of disease. Impressed with these feelings, before entering on the present and possible state of our Mofussil towns, we shall offer a slight sketch of the epidemics, with which India (or at least that portion of it contained in the Bengal Presidency) has been afflicted. For this knowledge, we are entirely indebted to the Transactions of the Medical and Physical Society of Calcutta—a work no less honorable to its authors and contributors, than valuable to the student of Indian disease;—and especially to him, who, at an early period after his arrival in this country, finds himself the isolated arbiter of life and death, amongst surrounding thousands. Whether as a history of the past, a guide for the present, or a stimulant to future emulative exertion, such a record is imperatively necessary; and we regard the discontinuance of the publication, as much in the light of a social misfortune, as a blot and reproach to the Medical Service. If Calcutta could afford no men of literary energy and skill, willing to continue the Society from which it issued, and able to wield their pens in its behalf—we conceive, it was the bounden duty of Government to have carried on the work. Such a course would have redounded, no less to the credit of the state, than to the advantage of its subjects. Owing to circumstances, which no great acumen is required to understand, literary and scientific enterprise in the East commands no permanent existence without extrinsic support. To this well known fact, medical literature is no exception. That Governmental aid is not a visionary hope, we are well assured, by that so liberally extended to the Asiatic Society. None can respect more than ourselves, the sciences, which have found in it so

fit a nurse; but we would venture to suggest, that the healing art has claims also. "They manage these things better in France." In that country, so enlightened in all that pertains to science, a Medico-Military Journal appertaining to the state, has existed from the year 1763, that is for a period of something less than 100 years; and, since 1815 only, fifty-eight volumes have seen the light. We cannot forbear quoting a sketch of its history from the *British and Foreign Medical Review* of January 1847:—

In 1763, Dr. Richard de Haute-sierck, Inspector of military hospitals, pointed out to the Duc de Choiseul, then minister of war, the advantages which would accrue to the Medical Department of the army, from calling upon the Surgeons attached to hospitals, to give a regular account of their practice, and to correspond, on the subject with the Inspector General, who should be empowered to publish the result of that correspondence. The minister authorized Dr. Richard to carry out his plan, and to collect and publish, at the expense of Government, any interesting observations and rare cases, which might thus be communicated to him. In 1766, he accordingly brought out a quarto volume, entitled *Recueil d'observations de la Médecine des Hôpitaux Militaires*; wherein, after laying down the plan on which the Journal was to be in future conducted, he pointed out the necessity of studying the medical and physical topography of the countries, commonly occupied by the troops, and especially, the salubrity or insalubrity of the various garrison towns, barracks, prisons, and hospitals. He also gave several reports of cases, descriptions of epidemics, some topographical memoirs—particularly, of the towns of Montpellier, Châlons-sur-Saône, Toulon, Lille, Bitche, and Strasburg—and a formulary of prescriptions for the use of the military hospitals. The gratuitous distribution of this work excited the zeal of the medical officers of the army, and increased the amount of correspondence on these subjects. In 1772, a second volume was published, which contained four memoirs on topography, five on epidemic diseases observed in France between 1764 and 1770, with many medical and surgical cases. Dr. Richard, for his services, received the riband of St Michael, and was created Baron de Haute-sierck.

In 1781, an ordinance was published on the subject of the Medical Department of the army, by which, among other things, the *Journal de Médecine, de Chirurgie, et de Pharmacie Militaire* was established; it was to appear every three months, and to be compiled by a retired consulting physician of the army. The object of this Journal was to promulgate facts and opinions, relative to the preservation of the health of soldiers, or to the successful treatment of their diseases; and nothing foreign to the medical department of the army, or of the military hospitals, was to be inserted. The first volume was published in 1782; and it continued to appear regularly till 1789, forming seven octavo volumes.

The changes of the administration of the army by the council, established by the minister of war in 1788, caused the publication of the Journal to be suspended. It was not intended to suppress it altogether: but the new directory of the hospitals announced in 1789, that it would no longer be brought out at stated terms, as a periodical work. From this date till 1801, the instability of affairs in France, and the numerous calls of duty on the council of health of the army, prevented the preparation of another volume. In that year, several officers were appointed to prepare a summary of the most important papers, which had been collecting dur-

ing the preceding twelve years; but, before this was completed, their services were required with the grand army. Nothing further appears to have been done till 1815, when the Journal was re-established—MM. Biron and Fournier Pescay being appointed the editors. It was at first brought out in bi-monthly numbers; but, this having been attended with many disadvantages, the editors resolved, in 1817, to publish it for the future in half-yearly volumes; and the title was at the same time changed to that which it at present bears. The minister of war, in his letter to the Inspectors of hospitals in 1815, states the object of the Journal to be, “to diffuse sound instruction among the medical officers of every rank, and to communicate to them, without delay, the discoveries, which shall be made in the theory and practice of the healing art. All the medical officers are called upon to contribute materials to the Journal. The publications of their labours will have the double advantage of being useful to the service, and of maintaining among all a noble emulation. In short, this Journal will become a depot, where each one may treasure up the result of his researches and the discoveries he may have made.”

To obtain the materials necessary for carrying on this work, the principal medical officers of hospitals and the surgeon-majors of regiments were directed to forward monthly reports, embracing all subjects relating to the health of the troops, either in the prevention or treatment of disease. They were also to give a detailed history of rare cases of disease among the soldiers; an account of any epidemics, with their probable causes and most successful treatment; meteorological observations, &c. The principal medical officers of hospitals were, likewise, to transmit quarterly numerical returns of admissions and deaths, and of the diseases by which these were caused. If these were ever furnished regularly, but little use appears to have been made of them, which we the more regret, as army medical officers possess opportunities of compiling satisfactory reports, which rarely fall to the lot of the medical profession in civil life.

The editors, being fully impressed with the importance of the study of military Hygiene, called the attention of the medical officers to the advantages to be derived from a careful examination of the “rules and precepts relating to the preservation of the health of soldiers, and to the most suitable means for removing or diminishing the fatal influence of the numerous causes of disease, to which they are exposed, both in peace and war.” M. Biron, in the second volume of the Journal, published a valuable Memoir on this subject, in which he directed attention to the principal objects of study. These he arranged under seven general heads; 1st, of the choice of the soldier; his physical and moral qualities, and the influence of military discipline on the recruit; 2nd, of the diet of soldiers; 3rd, of the clothing of troops; 4th, of their quarters:—*a*, barracks:—*b*, military prisons; *c*, hospitals; *d*, camps and bivouacs; 5th, of marches, exercises, and military works; the influence of, *a*, victories; *b*, retreats; *c*, captivity; 6th, duties of officers; discipline and habits of the soldier, inculcating the maxim, *qu’il faut le défendre contre lui-même, et lui faire du bien malgré lui*; 7th, of the duties of surgeon-majors of regiments.

Fifty-eight volumes of this Journal have now been published—a monument of the industry of the medical officers of the French army, and of the zeal and good sense of the council of health. The subjects chiefly treated, besides numerous interesting cases in medicine and surgery, are Hygiene; medical topography; histories of epidemics among the troops; clinical reports from various military hospitals; surgical histories of campaigns; reviews of works on military medicine and surgery; biographical notices of deceased medical officers of the army; extracts from the addresses to the pupils of the military hospitals at the annual

conours, and the names of the successful candidates at these *conours*."

From this it would appear, that the inquiries, which have been but recently proposed to the medical officers of the Bengal army, were instigated by the French Government no less than thirty-five years ago;—with this most important difference, however, that whilst the continental military surgeons were stimulated by the hope of an honourable publicity for their labours, our Indian medicos may work their fingers to the bone, in driving the gray goose quill, and yet its fruits shall enjoy "a sleep that knows no waking." Reports demanding care and skill are now required: but we much fear that, "each in his narrow cell for ever laid" upon some dusty shelf in Leadenhall-street, or amongst the archives of the Medical Board, their fate will be annihilation. Why has the British Indian Government yet to learn, that a Scientific Board and Office of Record fulfils but half its trust, in hoarding up, as in some living tomb, the stores of knowledge, which every day accumulate? Its noble task should be (and it is one well fitted to the able and experienced men, who now hold office) to generalize, and, from the thousand facts before them, to deduce great truths. If it be affirmed (as we believe it truly may be) that the establishment is insufficient to effect more than the current business of the day, then the Government might easily remedy the evil, by appointing an additional officer, as assistant secretary, to whom should be confided the task of benefiting the future by investigating the past, whilst his colleagues, as now, directed their attention to the present. Whatever may have been the feeling of Medical Boards in days gone by, we recognize but one sentiment in the present—that of courteously affording every facility to scientific inquirers. The will is, however, most unfortunately hampered by such a paucity of establishment, as forbids assistance being rendered, and thus virtually denies all benefit which might otherwise be derived.

We are well aware that works of striking merit have been published at the Government expence, when called for; and, doubtless, they would be so again; but we doubt whether the public treasury would saddle itself with the expense of printing any other communications than those absolutely asked for by the state, even though possessed of unexampled merit. But even were it so, a cumbrous correspondence must be the necessary preliminary. What we desire to see, is a State Journal of military medicine, supported, if need be, by the public purse:—but we confidently believe, that it would involve no pecuniary loss, as a moderate price should be charged upon each number. More-

over, it must be remembered, that many Topographical and Small Pox Reports, together with other works, such as Dr. Irvine's account of the *Materia Medica* of Patna, Dr. O'Shaughnessy's *Bengal Pharmacopœia*, and the surgical history of the last Punjab campaign, by Field-Surgeon Macrae, which might fitly have found a place in such a Journal as we advocate, were printed at Government cost.

We trust, however, better days are coming! The publication of its "Records" by the Bengal Government gives golden promise, that, in one office at least, the white-ant will, in future, be cheated of his prey; or, at all events, that his food shall first be "wedded to immortal type,"—a circumstance, which, we apprehend, will considerably benefit the world, without defrauding him of the good things, in which he has hitherto had a vested interest.

We have been led into this digression, through failing to obtain any printed account of the epidemic diseases of Bengal, earlier than 1825, the year in which the first volume of the Transactions under review appeared. In other words, a period of about seventy-five years, dating from the virtual commencement of our power, has been suffered to elapse without the publication of any available record of this important class of disease.

The year 1825, then, must be the starting point—as our readers need not be told of the epidemic form assumed by Cholera in 1817, and of the fatality apparently occasioned by the same disease at Ganjam, in the latter portion of the last century. To enquire into the antiquity of Cholera, is not our purpose here. Much may be said on both sides. Tradition may be trusted so far, as to justify the belief, that, even if co-eval with the Hindu race, the unfortunate year 1817 gave birth to an access of intensity. A native peasant's notions of his early years are seldom very clear: but we have always found a wonderful unanimity in the opinion, that the present fearful mortality of Cholera was unknown at the commencement of the present century, and that its existence, as a wide spread pestilence, was rare. The first Epidemic, recorded in the Transactions, is the Inflammatory Fever of 1824, which is thus described by Dr. Mellis:—

'What is the cause of the epidemic? is' now, and has for months past been, the question put to medical men, by almost every person in this city (Calcutta) and its suburbs. While some attribute it to want of rain, others look for it in the increased heat and closeness of the weather; and there are not a few who, considering the disease to have been contagious, or infectious, left their dwellings, and removed, either to boats on the river, or to distant stations.

Whether the quantity of rain which fell, was (from its scantiness or other-

wise) the cause of this disease, or not, remains to be shown ; and although, from the circumstances I shall state hereafter, we shall have reason to acknowledge, that heavy falls of rain did bring on the disease, yet the influence of atmospheric changes, as connected with caloric and electricity, must not be overlooked.

In our pursuit after knowledge, it is little cheering at times to find, that we are surrounded by immaterial and invisible agents, which elude our grasp, and can never become the subject of analysis or demonstration.

In so far, therefore, as certain conditions of atmosphere operate on our constitutions, on mind, as well as on matter, we must ever be much in the dark ; and not less so, as regards the same imperceptible agency, causing changes, as well in the course or march, as in the character, of epidemic diseases.

Thankful ought we all to be, that this disease has proved so mild in its character ; for we know well, that a different constitution of the atmosphere, such as existed during the prevalence of the Cholera, might have changed the symptoms from those of a mild, to those of a most deadly, nature. Had such been the case, I doubt not, that fear and terror would have brought under subjection the few that remained untouched by the distemper ; and that this city, the residence of nearly half a million of beings, would have become one vast charnel-house, with none to bury the dead, and few to save the living.

I am led to make these remarks from the circumstances of this disease having (with very few exceptions,) spared none of either sex, or of any age. The new-born infant, the aged, the weak and the robust, the rich and the poor, those reduced by disease to the lowest state of existence, as well as those under the influence, of medicine, and under usual discharges from the system, all were alike the objects of its attack ; for no condition, nor circumstances of any sort, seem to have availed in preventing it. Many families residing at a considerable distance from Calcutta, so far as twelve or fourteen miles—those who had houses at Barrackpore, Serampore, Dum-Dum and Garden Reach—thought, for a considerable time, that they had escaped ; but at these places the disease ultimately appeared, neither altered in character, nor in effect. On the river, too, higher than Berhampore, and so far down as the Sand Heads, the disease prevailed ; for scarce a day passed, but, as Marine Surgeon, I had patients arriving from every situation betwixt this place and the sea.

Of the history and progress of this disease, much yet remains to be known ; for it still exists, and occasionally attacks the few, who have hitherto escaped. The first account, I had of its appearance, was contained in a letter, from a medical friend, at Rangoon, and it would appear, that the disease first shewed itself there, about the end of May, or beginning of June. On the 10th of the latter month, a large portion of the troops, employed in the expedition under Sir Archibald Campbell, and then at Rangoon, had been ordered out to attack the Burmese, and were exposed to incessant and heavy rain for four and twenty hours. The consequences were, that on, and even before, their return to quarters, the greater number were seized with the Fever. The disease, my friend wrote me, might be considered at its height, perhaps, about the end of June, or beginning of July, when it declined for a while ; but, from all he observed and could learn, it again revived. Now, on referring to some notes in my possession, as well as from an examination of the prescription book at the Honorable Company's Dispensary, I should be led to date the commencement of the disease at this place about the beginning of June. The cases which occurred, either at Rangoon or here, about the end of May, were too few to excite particular notice ; and

It was not till towards the middle of June, that the disease became very general.

In its *symptoms* and *sequelæ* there was no difference, with the exception of what arose from indifferent diet, and the want of those comforts, which are usually afforded to the sick and convalescent; and, if we take the distance between the two places at 6 or 700 miles, we may conclude that some condition of atmosphere, as well as similar causes, obtained at both. From subsequent accounts I learn, that the disease extended in various directions; and not only to Chittagong, the south eastern extremity of the province of Bengal, but to the Presidency of Madras.

On looking at the Meteorological Diary for June 1821, kept at the Surveyor General's Office, Chowringhee, it will be observed, that from the 1st to the 10th, there were five days of heavy rain; and on the two following days, North-Westers, with lightning and much rain. Of the remaining sixteen days there were but ten without rain: so that out of twenty-eight days (for two are omitted,) there were eighteen of rain, while the remaining ten are marked as being clear and sultry, after 10 o'clock A. M. or from morning till afternoon. So much for the state of the atmosphere in June, 1824. Let us now see how it was in 1823. It will be found that out of thirty days, there were but seven, on which (what could be called) rain fell; for the two or three days, on which "a few drops fell," and a little drizzling rain occurred, are not worth notice, and had no effect on the general result * * * * *

I cannot close the few remarks, on the state of the atmosphere, which I have now submitted, without bringing to notice a circumstance, which I think, will go further to disclose one pre-disposing, if not exciting, cause of the epidemic, than any yet mentioned. I find from the 1st of May to the end of August, in 1823, there were but five days of sultriness, or of close and cloudy heat; whereas in the same four months of 1824, there were no less than thirty-one. Had July been complete (for seventeen days are wanting), I doubt not, the number would have been nearer forty than thirty-one; but, taking it as it is, in conjunction with the quantity of lightning, which in 1823 was three times greater than this year, we are led to conclude, that our atmosphere must have been more loaded with electrical matter, or that the equilibrium was so far disturbed, as to cause the sultriness I have noticed. Be this as it may, however, it is well-known, that the epidemics of the two last centuries have been preceded by hot sultry months, followed by heavy rains; and it is not very unreasonable to suppose that a greater quantity of electric matter, in our atmosphere, may have rendered us, not only more susceptible of fever, but more subject to an increase of its symptoms. It cannot be denied that electricity is a powerful stimulus. That our body has its proportionate share of it, we know: and that it is a conductor, and in communication with the earth we also know. Its effects in asthenic diseases, such as palsy and chronic rheumatism, have been acknowledged by persons of much science and experience; and, while it increases the circulation, and accelerates the jet of blood in hemorrhage, it promotes perspiration, and excites to greater activity the nervous, as well as the absorbent, system. If such be its effects when applied artificially, may not our bodies, at times, be similarly affected, when it acts naturally? If what I have stated lead to no important conclusion, it will, at all events, I hope, induce the Society to pay attention to the subject in future, and to keep a meteorological diary on the fullest scale. Of those at the Surveyor General's Office, they might, I doubt not, avail themselves for the sake of comparison, and give to their medical brethren, of other climes, some idea of the atmosphere, in which we live and move, and have our being."

According to Dr. Kennedy of Baroda, the same disease appeared almost simultaneously in Guzerat. He writes as follows, in the same volume:—

The epidemic, described by Dr. Mellis, passed though the whole province of Guzerat, during the last hot months, and was severely felt at Baroda, during the last week of May and the beginning of June. The localities, therefore, of Rangoon alone, are not to be enquired into, as fully explanatory of its origin. The natives termed the disease, *Tookutia*, a word which implies folding of the limbs to the body, as they will squat on the ground, cuddling themselves up into as little space as possible, when cold, or in pain. It could scarcely have been more general in Calcutta than it was here; for very few, indeed, of the natives escaped, though the Europeans were more fortunate. The former very generally, from superstitious motives, refused medical assistance, and trusted to nature, taking no nourishment save rice water; they therefore felt the utmost debilitating effect of the attendant fever:—few, who were attacked, recovering under three months from the debility and aching pains in the wrists and ancles, which the disease left behind it.

I was at first inclined to attribute it to the uncommon heat of the weather, and the extraordinary state of the atmosphere, the thermometer having ranged, in the best and largest house here, 90° of Fahrenheit at day break, and 108° at noon, during a considerable proportion of that period—whilst the soil round Baroda being sandy, and the whole district a level plain—the hot winds, which are always felt here in extreme severity from those circumstances, were more distressing than usual from the latter rains of the preceding season having entirely failed. The effect of not a single shower having fallen, since the 20th August, was not only, that every stream and pool were dried up before March; but all the grass very early in the season was withered away; so that the poor people had recourse to digging up the roots for forage. This so loosened the soil, in addition to its original sandy nature, that when the strong winds set in as usual, about the middle of May, at the change of the monsoon, they swept along such columns of dust, that no language may describe the misery of heat and half-suffocation we had to endure. I could not have imagined an atmosphere so loaded with dust, not even in an Arab desert.

Now this, I fancy, could not have been the case at Rangoon: and, at all events, the influenza, at its period of reaching you (Calcutta), must have appeared, when the air was purified and cooled by rain; so that extreme heat, and an atmosphere, that seemed to have half the surface of the fields, "*pars plurima terre*:"* lifted up and resolved in it, cannot be the proximate, though they may probably be the predisposing, causes. * * * *

If I were asked to class, or suggest a name for, the disease, I should really be very much inclined to regard it as a mild *Scarlatina*, modified by tropical climates; for though Dr. Mellis does not mention uneasiness in the throat, as marking the cases he saw, yet it was (though, certainly, in a very unimportant degree)† of common occurrence here. I can speak from my own observation, in populous manufacturing districts in Great Britain, that no epidemic made more rapid progress in spreading itself over the face of a country, and visiting all classes of inhabitants alike, than the *Scarlatina*.

* Lucan's description of the Desert. *Pharsalia*, Lib. ix., 456.

† In one instance, an officer of twenty years service in India, the affection of the throat was to the patient's feelings the most distressing symptom, and yet his was a severe attack.

The glazed windows, cool fires, and the alternations of heat and cold, may tend, indeed, there to fix the acrimony of the disease on the catarrhal symptoms, whilst here the poison may work itself off by the febrile. I merely venture a conjecture; but reflecting on the appearance, and mode of appearing of the cutaneous eruption, the rheumatic pains, the epidemic character, and the critical, third day—with or without adding the tendency to Cynanche, and the succeeding unaccountable and extreme prostration of strength, I cannot, that I can recollect, seek for the same train of symptoms in any other disease.

The intelligent mind of Mr. Twining did not fail to interest itself in so remarkable a disease; and he has, in the second volume of the *Transactions*, given us the following account:—

“The fever, which prevailed in Calcutta, in June, July, and August 1824, was equally remarkable, whether we consider the severity of the patient's suffering at the time, the few out of the whole population who escaped an attack, or the very inconsiderable mortality caused by it. The character of a febrile disease so peculiar, and in its results so unlike the epidemic and endemic fevers of tropical regions, surely deserves to be carefully recorded.

It will be readily admitted, that the seasons have considerable effect in modifying the character of disease, however questionable the mode may be, in which unusual atmospheric vicissitudes exert their influence. I should feel great diffidence in expressing an opinion, as to the mode of action and precise effects, which the nature of the seasons may have had, in producing or modifying the fever in question. Therefore, while stating the observations I have been able to collect, respecting the atmospheric constitution of the years 1823 and 1824, I wish by no means to place an unreasonable emphasis on their relation to the epidemic of 1824, being satisfied by the mention of the facts, concerning the importance of which the Members of this Society will, of course, form their opinions. Nevertheless, it will appear, that there existed the co-operation of agents acknowledged to have great influence in the origin and transmission of morbid miasmata. These agents are heat, moisture,* and stagnation, in a degree not accordant with the usual suggestion of the seasons in Calcutta.

In the year 1823, the hot season of April, May, and the beginning of June, was, by no means, remarkable for its intensity; and Calcutta was, according to the best accounts, quite as healthy in those months, as it usually is at that period of the year. The rains, which succeeded, were believed to be rather more abundant than common; but by a reference to the register of the rain-gage kept at Calcutta, that belief is unsupported. The rains, in the higher part of Bengal, and to the westward, appear to have been remarkably heavy; for, in the latter end of July, the Damuda river overflowed much beyond the usual height of its waters at that season; and the inundations in Bengal generally were, in consequence of the heavy rains in the district just mentioned, more extensive than ordinary.

In 1824, the temperature, indicated by the thermometer in April and May, exceeded but little that of the previous year; but the heat was of a more oppressive description to the sensations; and it was observed, that the occurrence of North-westers, which, usually, by their frequent return cool and refresh the air in Calcutta, and give, at times, a temporary respite

* Although heat, humidity, and stagnation of the atmosphere prevailed at Calcutta, previous to and during the epidemic, a state of atmosphere quite the reverse of humidity prevailed at Baroda, when a similar disease existed there in 1824.

from the burning heat, were remarkably rare in those months. The rains commenced unusually early; the first, this season, fell on the 18th May, after which there were six days of heavy rain, and four days in which light rain fell, before the end of the month, which gave a transient freshness to the air: but the intervals between the showers were extremely close and oppressive, and the evaporation great, resembling a hot steam rising from the earth.

For the data contained in the following table, I am indebted to Mr. Gibbon, whose general accuracy will be a sufficient pledge of its correctness:

	1823.										1824.									
	Thermometer.				Barometer.		Rain Gage.	No. of days rain in each month.	Thermometer.				Barometer		Rain Gage.	No. of days rain in each month.				
	In a room.		Shade outside.		Highest.	Lowest.			Highest.	Lowest.	In a room.		Shade outside.				Highest.	Lowest.		
	Highest.	Lowest.	Highest.	Lowest.							Highest.	Lowest.	Highest.	Lowest.						
April ..	96	73	103	89 ³ / ₄	..	..	..	5 ⁵ / ₆	96	77	103	72	29.99	29.71	..	4 ¹ / ₆	
May....	94	77	99	74	..	..	3.485	10 ⁵ / ₆	96 ¹ / ₂	75 ¹ / ₂	101	74 ¹ / ₂	29.90	29.60	6.820	10 ¹ / ₆		
June ...	90	79	96	76	29.80	29.42	8.260	17 ¹ / ₄	90	79	96	74	29.77	29.48	14.321	21 ⁴ / ₇				
July....	86 ¹ / ₂	79	92	78 ¹ / ₂	29.68	29.42	24.469	27 ⁵ / ₈	88	79	97	78	29.79	29.54	18.278	26 ⁸ / ₁₃				
August .	85 ¹ / ₂	79	90	79	29.80	29.35	20.213	27 ⁵ / ₈	88	80	96	70 ¹ / ₂	29.70	29.54	38	29 ⁶ / ₁₃				

The 8th column for each year, in this table, shows the number of rainy days in each month; and of the figures placed fractionally, the upper number indicates the days, when there was light rain, but no appreciable quantity collected in the pluviometer; the lower numbers shew the days of heavy rain.

It appears that there was more rain at Calcutta, in the above stated five months of 1823, by nearly one sixth, than there was during the same period of 1824: but the early rains in May and June of the latter year exceeded by above one half, the rains in the same months of the former year. However, the quantity of rain, that fell during the whole of the two years referred to, was quite equal to the general average of rain annually in Bengal, which has been stated at 70 inches. By the same Register, from which the above table is composed, it appears, that from the 1st September to the end of December, there fell 16 inches of rain at Calcutta in 1823, and 28 inches in the same months of 1824, making the total of each year above 70 inches. But it was not necessary to include those months in the table, which were subsequent to the cessation of the epidemic.

I am sensible, that it would have been more satisfactory, to have given the average of the daily temperature of each month at stated hours; but I have not had access to Registers kept expressly for that purpose.

There are states of the atmosphere, which influence our feelings of health and comfort, and doubtless exercise an action on the human constitution, in a degree not to be ascertained by any instruments or scales hitherto invented. To some occult, and not easily appreciable, agency of this sort,

may be referred a state of the atmosphere, which occurred in the latter end of May, and frequently in June and July, but in a more remarkable degree from the 4th to the 9th of July, and again, on the first four days of August. There was an intense glare of white light from the whole sky, extremely painful to the sight; at the same time, there was such a hazy state of the regions of the atmosphere, that the sun could with difficulty be distinguished. This was attended with an extremely close damp heat, more distressing than the heat of the brightest sun-beams I ever experienced. Can this effect arise from the transmission of the rays of light through a hazy atmosphere, and depend on the increased refractive power of the latter, bringing the rays through innumerable watery lenses, more perpendicularly on the earth, in the early parts of the day: so that, conjoined with the influence of a humid atmosphere, the effects of the noonday sun are experienced at a much earlier hour, than when the sky is quite clear?*. On both the occasions above alluded to, this state of the atmosphere, just noticed, was succeeded by an increased frequency of the attacks, and by relapses of the prevailing fever in a great number of instances. It is true, that a similar state of atmosphere prevails at Calcutta, more or less, every year, in those months, but its predominance in 1824 may be attributed to the early setting in of the rains in unusual quantity.

In the beginning of this year, there was a scarcity of grain in Bengal, and the price of rice rose considerably, but I am not aware, that in the early part of the year, the native population suffered generally from disease. Cholera occurred in a severe and fatal form at some villages, about eighty miles to the N E of Calcutta. I was informed, by a gentleman residing at Ballygunge, that the adjacent village of Chakoley, had contained little more than 100 inhabitants, of whom 82 were known to have died of cholera, within a few days of the time when I passed the place on the 11th April. And I was then told, that the inhabitants of the neighbouring villages, were at the time suffering from Cholera, which was remarkable for the total absence of spasms. It was stated that many of the sufferers were, without any previous illness, seized with a vomiting, and, after being purged once or twice, died in the course of half an hour after the attack.

During the existence of widely spreading epidemics, unusual mortality among animals, has been considered a collateral proof of a contaminated atmosphere. Although I have not been able to ascertain that any general mortality occurred among animals, like the epizootics that have occasionally accompanied epidemic disease in the north of Europe, it may be worthy of record, that the year 1824 was remarkably fatal to dogs in the vicinity of Calcutta,—the sickness among those animals commencing in August. They were seized with loss of appetite, excessive thirst, violent action of the heart, that could be seen a considerable distance; and, in some cases, there was yellowness of the eyes and skin, with distension of the belly, though the dog had taken no food for several days. These symptoms were followed by a purging, which carried off the animal in a day or two, after its commencement. On dissection, the stomach was found empty, the spleen, “unnaturally turgid” with blood, and the liver streaked with dark purple and black. Various modes of treatment were tried, but found of no service. In one kennel, 10 couples out of 12, died. One gentleman lost 15

* Numerous facts prove the increased refractive power of a hazy atmosphere: at the moment, I recollect none more remarkable than the observations made in some of the mines in Sweden, where it has been found, that on hazy days, a moderate sized print could be easily read at 100 yards depth, under the shaft of a mine; but on days of bright sunshine, there was difficulty in reading the same print at the depth of 60 yards.

out of 16 dogs, and another lost 14 out of 12. In one pack of 47 couples, 43 couples died in two months; in these last, the disease commenced in the beginning of October. I am indebted for the above information to the kindness of two friends, who paid great attention to this disease in dogs, and were much interested in the subject.

The earliest cases of the epidemic of 1824, that came under my observation, appeared on the 23rd and 24th of May, a few days after the commencement of the rains. In the course of ten days, great numbers of persons were ill of the fever; and I have reason to believe, that, before the end of June, nearly half of the population had been affected. Through July, the disease continued unabated; indeed, from the 4th to 9th, as already observed, the number of attacks appeared much augmented: and, although the little tendency to fatal termination was well ascertained, it was truly distressing to observe the numbers, either labouring under effects of first attacks, or suffering from relapses nearly equal in severity, as well as those who, though free from the more urgent febrile symptoms, were from debility totally unable to follow their ordinary occupations. Towards the latter end of July, the primary attacks of the disease were comparatively rare, there being few only at that time, who had escaped the fever. * * * * * The result of my enquiries leads me to believe, that a fever, in some respects, resembling that just described, prevailed at the same time in some other parts of India, where the situation was low, and in the vicinity of the sea, or within the delta of great rivers; but not in central or Upper India, or in elevated situations. No such fever prevailed generally at Ghazipore, Patna, and Dinapore; or even so low down as Berhampore*. The latter place, being within the low flat district of Bengal Proper, and only ninety miles distant from Calcutta, might have been supposed to be under the influence of much the same sort of circumstance as Calcutta, with respect to atmospheric vicissitudes and exhalations. The inundations of 1823, at Berhampore, exceeded their usual extent at that season, quite to the same degree that then occurred at other stations in Bengal. The rains of 1824 did not set in at Berhampore, so early as at Calcutta. H. M's 87th regiment had been nineteen months at Ghazipore, when they proceeded from that place on the 10th of June 1824 for Berhampore, where they arrived on the 27th of the same month. The corps was not attacked at either of these stations with any similar fever; neither were the people of the bazar, or the native inhabitants, generally, at either of those places, visited by such disease. However, I understand that there were a few sporadic cases of fever, at several different stations, through the country; the leading characters of which, were so like the fever that prevailed in Calcutta, as to indicate the influence of some widely extended and general cause, modifying the nature of the fevers at that season.

In the same volume we have the following account, by Dr. J. Mouat, of an epidemic fever, which prevailed at Berhampore, in the beginning of the year 1825.

About the end of March, or beginning of April, 1825, a fever, possessing peculiar and marked characters, appeared amongst the men, women, and

* The statement is confirmed by a communication from Mr. Proctor, Secretary of the Medical Board, and by a very obliging note from Mr. Savage, who, in speaking of Berhampore and the adjacent city, Moorsshedabad, where he was stationed, says, "The rains of 1824 commenced here on the 12th of June. I am not aware that fever prevailed amongst the natives here, in an unusual degree in June, July, and August. There were several cases corresponding with the Calcutta fever, amongst the Europeans of the station."

children of Her Majesty's dépôt at this station, which is now generally known by the name of the epidemic fever. The suddenness of its attack, the redness and watering of the eyes, the acute pain in all the joints, rendered excruciating on the slightest touch, the scarlet or crimson efflorescence on the surface, its ephemeral duration, its not requiring blood-letting, &c., its sparing neither age, sex, nor habit of body, its seizing the acclimated, as well as those recently arrived, stamp it at once a different disease from the remittent, or endemic, fever of lower India. In March, we had six, in April, nineteen, in May, twenty-one, and in June sixty-six cases, viz, five men, twenty-six women and forty-one children, being a total of 112 severe cases requiring treatment in hospital * * * * * In July, it became somewhat less prevalent amongst the women and children of the dépôt, decreasing in August, and entirely disappearing in September 1825. My inability to consult the records of the Berhampore hospital at present prevents me giving the precise numbers of patients treated, subsequent to the date of my former report; and my quitting the station in August precludes my entering into minute details. In no way, however, did the characters of the disease change in the dépôt, though, in Her Majesty's 31st regiment, some little variation was observed, which I shall briefly notice. The left wing of that corps (recently landed from England) arrived at Berhampore in the first week of July 1825; and, in a few days, the epidemic appeared amongst them. Mr White, the surgeon, was one of the first attacked, and with singular severity, so much so, that for the greater part of the month, his duties devolved on myself. In the 31st regiment, out of eighteen officers, two only escaped this epidemic; and amongst the men, it was alike prevalent and severe. In them, bleeding was often found serviceable—referable, perhaps, to that high inflammatory diathesis, so characteristic of all the diseases incident to new comers. Catarrhal and pneumonic symptoms were very prevalent, owing, no doubt, to their being young men, or recruits at an age peculiarly predisposing to pulmonary affections. The disease, in every respect, appeared the same;—modified, probably, from their being unseasoned, and not having been in the country more than two or three months.

Note by the Secretary—The epidemic, described by Dr Mouat, was not limited to the station of Berhampore, but visited many other places on the banks of the river, during the rains of 1825. It was particularly severe in the large and populous towns of Patna, Benares, and Chunarghur. At the last place and its immediate vicinity, not fewer than 10,000 natives are stated to have suffered from the disease at one period. Mr Robinson, superintending surgeon of the district, in his communications to the Medical Board, thus described the fever. "Within the last six weeks or more, (his letter is dated 18th August 1825) an epidemic fever of a rheumatic character has prevailed generally, from Buxar to Benares, Chunar, and Mirzapore, at which places, as well as this station (Ghazipore) hardly a person of any age or sex, whether European or native, has escaped. It has generally commenced with severe pain in the loins, wrists, and ancles, unusual drowsiness, and headache. It seldom continued beyond four days, but has been followed universally, by great prostration of strength. It usually gives way to purgatives and emetics, frequently repeated; and, in a variety of instances, warm bathing has proved of essential benefit. There has been, in many cases, an accumulation of bile. In several, the head has been much affected; and in such, where the habit was full, early and copious depletion with the lancet has been followed by the best effects. It first commenced at Buxar, and has been since gradually advancing up the river to the other stations on its banks. It appears to

be confined entirely, to the course of the river, as I do not hear that the population of the towns and villages inland have suffered more than usual. Numbers of the soldiers of the European regiment, at this station, have been attacked; and from fifteen to twenty-six are daily coming into hospital. The whole regiment, I imagine, will feel its influence.

It would thus appear that an ephemeral fever existed in the epidemic form in 1824-25, simultaneously appearing in Burmah, Calcutta and Guzerat, and progressing northwards at an uncertain rate, eventually extending to Mirzapore and Chunar, after a lapse of twelve months from its first appearance. According to Dr. Mouat, it only arrived at Berhampore nine months after its prevalence in Calcutta; but he does not specify, whether his regiment had recently come. If so, the disease might have existed at Berhampore in the previous year, when Calcutta was afflicted.

Its meteorological relations are vague. The quantity of rain and the temperature of Calcutta seem to have differed slightly from the previous year, excepting that the heat was of a much more oppressive character, and the rain fell in large quantities, combined with an excess of electricity. We are unfortunate in possessing no record of the weather, in the other stations which it attacked, or any further statement of the extent of its ravages.

We now hear no more of epidemics (always excepting the Cholera, which prevailed annually) until June 1828, when a severe Bronchitic Fever, almost entirely limited to children, and proving very fatal amongst them, was prevalent in lower Bengal. Dr. Adam writes as follows, in the 4th volume of the "Transactions :"—

The recent occurrence of an epidemic febrile affection among children having attracted a considerable share of my attention, I have drawn up a brief account of the disease, which I now present to the Society, chiefly in the hope, that it may induce other members to contribute their observations on the same subject. * * * * * As far as my own experience goes, not one child, out of 100, under four years of age, has escaped the attack. Although in different individuals, exhibiting various degrees of severity, it has naturally engaged in some a much greater share of attention than in others; yet the general character of the disease, as will appear in the sequel, has been the same in all. * * * * * In place of an epidemic bronchitic fever, affecting infants and young children, as I have designated it, perhaps, it may, with more propriety, be termed an epidemic fever, with determination to the mucus membrane of the bronchiæ. The phrase, Bronchitis, is too specific, and, as implying inflammation, appears objectionable; for of the actual presence of this condition of the local structures, I am by no means certain. * * * * * This epidemic, I find from inquiries since made, was not confined to the city and suburbs of Calcutta, but extended to many stations in Lower Bengal. It prevailed at Chinsurah, Burdwan, and Bauleah; and cases of it were met with as high as Maldah. At Burdwan, Mr. Coulter, the resident surgeon of the station, states, that

"almost every European child was attacked with it; in some attended with very high fever, which seldom lasted above twenty-four hours." And he adds, what did not appear to have occurred here, "that the native children too, suffered considerably; and that the adult natives of the district had fevers similar to that of the children, with the difference, that in the former it was accompanied by a troublesome ophthalmia; but though the sickness was great, the casualties were comparatively few."

Dr. Macpherson of Bauleah says of this fever:—

No case of the epidemic, which proved so fatal to children from the age of six months to a year and a half, during last rains, occurred at this station* till the middle of August, where a fine, stout, healthy little girl, nearly nine months old, was attacked, and carried off, after fifteen hours' suffering, from the time the symptoms became urgent. Another fine child, six months of age, was seized with the disease, ten miles from this place, about the latter end of September, which proved fatal in ten hours, from the period that feverish and other untoward symptoms first made their appearance. All the other children of the station, and several in the vicinity, suffered attacks during the month of September; but (with one exception) all of them were upwards of two years of age; and the active treatment, that was had recourse to from the commencement, had fortunately the effect of checking and ultimately removing, all dangerous symptoms, although in every case, the little patients were sadly reduced, and did not regain their health and flesh for several months. * * * * *

I am totally at a loss to assign any cause for the prevalence of this disease. There was, however, one thing remarkable in the weather, which, I think, worthy of notice. The wind, during the rainy months in Bengal, blows almost invariably from the east or south east; but during August and September last year, it was generally southerly or easterly, with hot sultry days and strong gales at night.

Commenting upon this, Dr. Adam again says:—

This fever, which occurred at Bauleah, so accurately described by Mr. McPherson, will at once be recognized as corresponding in almost every feature with the Calcutta epidemic. Although in point of time, it occurred some weeks later, yet I cannot entertain a doubt of their identity. How far the disease was communicable by contagion, I am at a loss to say. From my own experience, I should be inclined to doubt this conclusion. That it owed its origin to some very general cause, acting on the tender European frame, appear obvious from the whole history of the malady. No native children, that I am aware of, laboured in a serious degree under a similar affection. There may have been instances of catarrh at the time, but the subsequent fever was wanting; and the general fatal result was not observed to occur in the latter class. We know, it is true, but little of the state of health of the native population under ordinary circumstances; but, when sickness presents itself in an epidemic form, and more especially, where the consequences of this are, in many cases, fatal, the existence of the disease is speedily communicated to the European community. Compared then with the latter, the natives suffer little or nothing from the visitation in question; and, in considering the causes of the malady, we must always bear in mind this remarkable disposition. Among European children, very few escaped—not one out of a hundred, as stated at the commencement of the paper. The proportion of deaths was likewise very great, as will appear from the following statement

* Bauleah.

of the number of children and infants interred in the Park street Burying Ground, for the months during which the disease prevailed in 1828, compared with the three preceding years. The subjoined extracts from the obituary list, published in the *Government Gazette*, for the same period, will furnish a further confirmation of the fact.

Number of interments of young children and infants in the Park-street Burying Ground, during the months of June, July and August, for four years, or from 1825 to 1828 inclusive.

June, July and August 1825	25 casualties.
Ditto Ditto Ditto 1826	23 "
Ditto Ditto Ditto 1827	21 "
Ditto Ditto Ditto 1828	49 "

Extracts from the obituary list of the *Government Gazette*, shewing the number of casualties, during the above period, in children, under four years of age.

	1825	1826	1827.	1828
June	9	7	6	4
July	3	3	11	31
August	15	3	9	24
Total.....	27	13	26	59

It is peculiar to the epidemic now described, that it should occur as such, in subjects of tender years and be exclusively confined to them. In the history of Indian disease, so far as I am acquainted, we have no precedent to compare with it. The exanthemata are occasionally prevalent among all classes; but a fever so marked by local determination, and very fatal issue, must be held, not only novel in this country, but rare, so far as put on record, even in Europe. From whatever cause it originated, the disease has proved too severe in its consequences, by depriving many a fond parent of their beloved offspring, to be overlooked; and, I trust, the plain but faithful relation I have endeavoured to give of its progress and more striking characteristics, may prepare us hereafter to combat it with greater success, should we be doomed to witness another visitation of the calamity. There is little doubt, had the real nature of the affection been early suspected, and active measures resorted to by way of precaution, that in many instances, children would have suffered only in a slight degree, who were eventually carried off by it."

Here again the absence of meteorological record, for any other station than Calcutta, forbids generalization. The constitution of the year was remarkable in throwing the chief weight of disease upon young children, and in selecting the pulmonary organs as its point of attack. Maldah was, most probably, not the limit of its diffusion; but we find no data from which to trace it to other stations. Its rate of progress would appear to have been much more rapid than that of the fever of 1824-25, which occupied nine months in reaching Berhampore, whilst the present raged in Bauleah, a place equally distant from the capital, after the lapse of six weeks.

In 1829, we are told of a fever which prevailed extensively in the Mirut and Sirhind division of the army, thus described by the Medical Board:—

It appears by Mr. Langstaff's reports, and a meteorological register

kept at Mirut, that the early rains of the year 1829, were in that district unusual in frequency and quantity, but ceased prematurely. The dry period, which followed, was remarkable for extremely hot and oppressive days; while there was an equally notable decrease of the temperature of the night. September is reported as a dry and unseasonable month, during which, an epidemic fever prevailed in the district of Hurrianah, and at Delhi, spreading from thence on the opposite bank of the Jumnah, in a direction, corresponding with the course of the existing winds. This fever commenced, before there was any abatement of the rains, and assumed for the most part the bilious remittent form; resembling, in severe cases, the worst type of jungle fever, while milder cases became intermittents. Europeans and natives appeared equally liable to the disease; and it was observed at Mirut, that of the former those men suffered most from the disease who had been the longest resident in India. A bilious tinge was observable in the majority, and, in many, this symptom existed to a great degree. The latter stage of the disease was attended by a remarkable and protracted debility, dejected aspect, and despondency of mind. The greater number of the patients lingered through a tardy convalescence; and the ratio of mortality was very small.

Dr A Murray's report contains a statement of the fever, which appeared in the Sindind division of the army. The disease commenced at Hansi, about the 20th April 1829, and prevailed very extensively, but in a mild form; the sickness decreased much in June, and from the 20th, that station was considered healthy, until the middle of July; soon after which, there was great increase of disease; and all classes of persons appeared to suffer equally—the European officers and their domestics in the same ratio as the native troops. Very few fatal cases occurred generally. In the 15th N I, above 400 cases of fever were admitted, and only one fatal case had occurred, up to the end of July. Two companies of the 37th N I. were sent from Kurnál to Hansi early in July; and at the end of the month, this small detachment had thirty-two sepoys in hospital. The disease was more severe among the native inhabitants of Hansi; and from want of prompt medical aid, it proved more fatal. The nature of the fever at Hansi is reported by Dr. Murray to have resembled that above mentioned by Mr Langstaff, as having prevailed at Mirut; and the convalescence was just as tardy, leaving the constitution equally impaired. The prevalence of fever at Hansi was ascribed to some small tanks situated between the town and cantonment, and to a bad state of the drains. The disease was not supposed to be influenced by the canal, which passes through that district.

These accounts make it quite clear, that the fever must have been due to causes, common to the two divisions of the army: but what these were, we are unfortunately not in a position to state.

The sixth volume contains a very interesting communication from Dr. Ward, on the Epidemic Catarrh, which prevailed at Penang, in July and August 1831. He says:—

“The importance of the history of Epidemic maladies generally, will, I hope, be a sufficient excuse for my obtruding on the notice of the Society, a few remarks on one, which has prevailed extensively in this island, among the shipping in the roads, and on the opposite coasts of province Wellesley, during the past and present months. The disease appeared in the form of severe catarrh, attacking suddenly,—in many cases, with rigor. The usual

symptoms were ardent fever; great languor; sudden prostration of strength; headache, often violent; with heaviness over the eyebrows; severe muscular pains over the body, but more especially in the lower extremities; frequently nausea, and sometimes vomiting; harassing and constant cough, at first unattended with expectoration—accompanied sometimes with pains in the chest; sore-throat, producing difficulty of swallowing; slight inflammation of the eyes; increased flow of tears; sneezing, and copious discharge of thin acrid mucus from the nostrils * * *

* * * The exact number of sufferers from this Epidemic, in the island of Penang and province Wellesley, could not be ascertained. Few of the inhabitants, however, escaped an attack of it, more or less severe. It affected at once whole families; it attacked young and old, male and female, of all tribes indiscriminately; several shops were completely deserted during its continuance, and many of the European part of the population were put to considerable inconvenience by the indisposition of their whole establishment of servants. No circumstance occurred, during the progress of the malady, to induce the belief of its being contagious. When it attacked a house, the individual members were affected about the same period. In some of these, febrile symptoms ran high; in many, the disease showed itself merely in the form of a slight cold, or common catarrh; the feverish feelings being either so very slight, or of so short a continuance, as not to interfere with the patient's usual occupation. During the continuance of the Epidemic, it was remarked, that horses were very subject to cold, and that several cases of glanders occurred. * * *

In the hospital of the 46th Regiment N I, sixty cases of the prevailing Epidemic were admitted between the 17th of July and 12th of August. Independently of these, however, many were attacked with the slighter form of the disease, and did not think it necessary to report themselves sick. The average duration of the disease, in those who were treated in hospital, were $5\frac{3}{4}$ days. All were discharged cured. * * *

His M. ship *Wolf* came into harbour, from a cruise, on the 14th of August; and, between that date and the 21st, upwards of eighty men and officers—nearly two thirds of the crew—were seized with the Epidemic in a violent form. All recovered rapidly, except two, in whom the disease was most severe; and they have been since invalided.

The disease made its first appearance here about the 15th July. The month of June had been unprecedentedly dry; scarcely a drop of rain fell from the 3rd to the 25th. The number of rainy days was nine; and the quantity by the Pluviometer was found to be 7.05 inches. Between the first and the 15th of July, there were three rainy days, in which only 1.05 inches fell. During both months, the hot, sultry, unpleasant, and unhealthy S. E. wind had been blowing uninterruptedly. The thermometer rose generally to 89° and 90° in the middle of the day, and ranged from 78° to 82° in the mornings and evenings. The 15th, 16th and 17th of July were rainy; and, during those three days, 4.25 inches of rain fell, producing sudden coolness of the atmosphere. From the 18th of July to the 11th of August, 2.25 inches of rain fell on seven separate days; and, during the whole of this period, the southern wind continued to blow. On the 10th of August, the wind changed to the N. and N. W.; heavy falls of rain took place on that and on the two subsequent days; and the disease began to disappear. On the 14th, the wind again became southerly, but occasionally blew from the N. W. during the day. On that night, as already noticed, H. M.'s ship *Wolf* arrived in harbour; and her crew were attacked with the disease. In two or three days after, the wind continued to blow steadily from the W. or N. W.; a small quantity of rain fell every day after the 23rd, and

no further attack was noticed in the town or surrounding country.
* * * The following account of the Epidemic, as it occurred in Java, communicated to the editor by a correspondent at Sourabaya, I have translated from the *Javasehe Courant* of the 19th of May, 1881:—

“*Sourabaya, May 18th, 1881.*”

“SIR,—There has lately prevailed in this island and its dependencies a sickness, which, as I have heard, has spread universally here, and has extended to Samarang and Bezorki. As the subject may be interesting to you, I have thought it proper to communicate the observations and inquiries I have made respecting it: more particularly, as the disease first shewed itself in this place. In the latter end of the month of March last, news came from Grisse, that the natives there were so ill, that their daily occupations were with difficulty carried on. Not long after, in the beginning of April, it was discovered in Sourabaya, and attacked indiscriminately every family, European as well as native, both in the city and suburbs; and all the shipping in the harbour were affected with it, except the crew of H. M.'s corvette *Pollux*, which moved out further from shore. In the middle of April, the natives of the interior of the districts of Sourabaya, Bancalhang, Pamakassan, and Sumanass, were seized with the disease, which continued to prevail until the middle of May. No place escaped its attacks, even the people of the Mountain of Tinger, situated in the district of Passaroang, were visited by it. Luckily, however, this sickness, as I have understood, is not very dangerous. In this presidency, in the department of Sourabaya, where there is a population of 311,192 souls, 48,217 persons were attacked and 103 died. In the department of Grisse, with a population of 223,626, there were 52,528 patients, of whom only 8 fell victims to it.

“The observations, which I have made on the barometer, from the commencement of the Epidemic, up to this day, have shewn nothing particular; for it has stood generally between 29.8 and 30.2; whilst the thermometer of Fahrenheit, in the beginning of April, stood very high, particularly at mid day, when it rose to 90°. In the morning it stood at about 83° or 84°. The weather, in the end of March and beginning of April, was dry and clear, without wind; but in the evenings, the air became very damp. After the rains fell, the heat decreased: and I have seen the thermometer at Sumpang, in the mornings generally, at 79°, and at mid-day, at 84°. The temperature of this place differs a little from that of the town however. The daily falls of rain and the easterly winds produced a pleasant change in the weather, and the sickness afterwards visibly decreased, so that now, I think, the cause has ceased here altogether.”

I have not heard of this epidemic having prevailed at Batavia, or any station on the northern part of Java. It appeared in Singapore, about the middle of June. The following meagre notice of its existence in that settlement is extracted from the *Singapore Chronicle* of the 30th of that month: “We regret to state, that an Epidemic sickness prevails throughout the settlement; its attack, though not confined to natives, extends very generally amongst them. It is not, however, accompanied with any dangerous symptoms, being merely a feverish sickness, attended with a cold and cough. Like similar distempers, we trust it will not be long before it makes its disappearance from amongst us, and the settlement be restored to its wonted general health.” From the above account, and from private information, we learn that the symptoms and progress at Singapore were the same as noticed in this island. There too, the southerly winds had prevailed; and the disease disappeared on the falling of the rains. Ninety sepoy, out of about 300, were admitted with it into the military hospital. No death occurred among them, and the treatment was nearly the same as that adopted here

The Epidemic reached Malacca about the end of June; and there also spread extensively among the inhabitants, and exhibited the same symptoms. It also disappeared on a change of weather taking place there. As has been already stated, it visited this settlement towards the middle of July.

With the imperfect data before us, it is impossible to determine, at present, where the disease originated. It can hardly be doubted, however, that the cause was one of a very general nature; and that the disease, as it appeared here, was produced by the same peculiar state of atmosphere, whatever it was, which excited it in the eastern part of Java. It is scarcely possible, that the occurrence of it in these different places, remote certainly, but following at regular intervals the course of the prevailing winds at the period, could have been a mere coincidence. The distance from Singapore, to Samarang, is by the map about 600 geographical miles in a S E direction, with the large islands of Billiton, Banka and Lintin between them. It is probable, though I have had no means of ascertaining the fact, that it may have visited these places in its progress to the northward. We conclude, that the peculiar morbid state of the atmosphere was conveyed by the S E. wind to the various places attacked by the disease in question: and this opinion will not appear extraordinary, when we remember, that epidemic catarrhs of a similar nature have extended from Europe across the Atlantic to America. The supposed immunity of Batavia is thus easily explained, as from its situation at the west end of Java, it is removed from the direct influence of the S. E. wind. Presuming, that the opinion above expressed is correct, the disease is supposed to have taken two months to reach from Java to Singapore, and $1\frac{1}{2}$ more to extend from the latter place to this island. In all these respects, it will be seen to resemble the influenzas, which have appeared at various times in Europe—in its symptoms, more particularly, the violence of the fever, the great debility, its short duration, and comparative safety; in its extent, and in its rapid progress over immense tracts of country. Its origin is involved in the same doubt and difficulty."

This would appear to have been the influenza so well known in the present day, in regard to the sufferings it entails; but of the law of which we are just as ignorant, as when, twenty years ago, Dr. Ward expressed a hope to see the subject studied.

His own is no unimportant contribution to the philosophy of Epidemics. It clearly marks the rate of progress, and, in some measure, the extent of diffusion of the disease. The month of April appears to have seen its commencement in Sourabaya, on the north-east coast of Java, where it attacked about a sixth part of the population, destroying but very few. It appeared at Singapore in the beginning, and in Malacca at the end of June, whilst Penang first felt its effect in the middle of July. It seemed to be carried by the south-east wind, as shewn by its avoidance of Java, which lay north-west of its course. On all occasions, an elevated temperature preceded it.

In 1832, we are informed by Mr. Boswell, that the same island was visited by a very destructive fever during the months of June, July, and August. April of the same year, was marked by the appearance of a mild Epidemic fever, at Indore, and

other parts of upper India. The report of Mr. Ludlow is as follows :—

The disease commenced with pyrexia, accompanied by pain and a sense of constriction across the chest, which was followed by slight superficial inflammation of the throat. As the febrile symptoms subsided, a painful tenderness of the trachea, attended by cough and hoarseness, supervened.

It is mentioned, that, at Indore, scarcely an inhabitant of the city escaped the disease. At Mhow it first attacked the natives in the Sudder Bazar in considerable numbers, and some deaths are reported to have happened. It afterwards spread among the officers and servants. At a time when seventy or eighty men of the 65th regiment were in hospital, in consequence of the Epidemic, not more than a case or two occurred in the 7th Cavalry, although both corps had lately arrived at the station. * * * * * The disease disappeared about the end of the month: and, although it usually left the patients in a state of great debility, no other bad effects were stated to have arisen from it, nor were there any fatal terminations, except a few patients who were reported to have died in the bazar. The epidemic was ascribed to the state of the atmosphere. Immediately before it appeared, the weather had been sultry and calm: the atmosphere heavy in the day, and at night, chilly breezes from the N. E. had been frequent. Mr. Ludlow observes that the previous cold season had been remarkable on account of the unusual quantity of rain, which fell throughout the northern and western provinces of Bengal. At that time, salivation was frequently observed to arise after the use of a very small quantity of mercury. And cholera of a severe and fatal kind appeared in the rainy season, among the European Artillery, but was evidently often the consequence of drunkenness. Vaccination was singularly successful in that part of the country, this year; whereas in 1831 (a remarkably dry season,) of fifty or sixty vaccinations, only one child had the true vaccine pustule; but many had a spurious pustule, sometimes accompanied by slight eruptions on other parts of the body.

The same Epidemic was reported to the Medical Board, by Superintending Surgeon Playfair, of the Meerut Division.

His report contained a brief notice of an epidemic, which appeared at Meerut about the same time (7th of April), and which, in character and intensity, very much resembled that which is above stated, to have occurred in Mr. Ludlow's division. In the course of ten days, it affected upwards of 200 men of H. M.'s 26th foot. The same epidemic appeared at Bareilly, and in other parts of Mr. Playfair's division, early in April; but in no one instance, either here, or at Meerut, did it prove fatal.

This malady, according to Mr. Ludlow, would seem to have been preceded by unusual atmospheric phenomena: but, as usual, the inferences drawn from the weather are vague in the extreme, from the absence of a strict and universal system of record of natural phenomena, without which we may go on blundering in the dark from year to year without the slightest approximation to the truth.

Whilst fever was prevalent in the north-west, Measles were rife in Calcutta, as reported by Dr. Corbyn.

Rubcola was very prevalent at Calcutta, and the vicinity, in March, April, and May, 1832; and numerous cases of varioloid disease, as well as

some fatal cases of confluent small pox, occurred at the same time. While these diseases were rife in this neighbourhood, other complaints appeared to be, for the time, in some measure superseded. The cases of measles, which came under the author's observation, were, in general, severe; the pyrexia ardent, and the cough very distressing; but the disease does not appear to have been very fatal.

About March of this year, Small Pox began to show itself in an epidemic form in Calcutta, and continued slowly progressing in fatality, until December; from which time, the deaths averaged about 500 a month until the June following, constituting a total mortality of 2,814 during the sixteen months.

Offering a marked difference to the Epidemics, which have already come before us, this one attained its greatest virulence in the coldest month, and dated its decline from the commencement of the "rains."

We hear nothing of the prevalence of the disease in other parts of India: but this may arise, rather from the absence of records, than from its non-existence.

During the rains of the year 1833, a very severe form of remittent fever prevailed epidemically in Calcutta, thus described by Mr. Twining:—

An unusually oppressive [hot season, more particularly during the months of April and May, was productive, at that time, of no remarkable increase of sickness in Calcutta. There were, however, several cases of determination of blood to the head, threatening apoplexy, but unconnected with fever;—they were ascribed to the high temperature, and extremely oppressive state of the atmosphere. A considerable number of cases of catarrhal fever then occurred in adults, in which, affections of the mucous membrane of the throat were severe, occasioning much hoarseness, and in some cases, suppression of the voice; there was also pain and stiffness in the muscles of the neck, with some oppression at the chest; and several of these patients had a red efflorescence over the whole skin, on the 2nd and 3rd day of the fever. * * * * * From about the middle of July to the end of October, a different form of fever prevailed; and we had most ample opportunities of observing the remittent fever of Bengal, in a greater number of cases, and with its peculiar characters, more exquisitely marked, than I have seen it for many years past. This fever, at its accession, varied much; some degree of rigor occurred once at an early period of the disease, in a considerable number of patients; in many cases, the attack was sudden; and, on the first and second day of a patient's illness, there was no doubt of the dangerous character of his complaint. Excessive reaction appeared at the commencement of the paroxysm, with very great determination to the brain; the eyes became blood-shot, the forehead hot, and the countenance swollen. The exacerbation generally began before nine o'clock A. M., reached its acmè soon after 12, and was then followed by a corresponding prostration of vital power; with profuse perspiration, coldness of surface, and rapid weak pulse: the coldness in some cases went on increasing, and terminated in death * * * * * I have omitted speaking of the causes, to which the fevers of 1833 could be attributed; wishing, that the series of diseases, which we had occasion to observe, should be first described, and the periods stated on which they

respectively occurred. There appears very little reason to doubt, that the increase of sickness, and the prevailing diseases at Calcutta and its vicinity in 1833, were much influenced by the unusually high temperature of the hot season, and the inundation which occurred between this place and the sea, at the time of the gale on the 22nd May, whereby numbers of the inhabitants and cattle were destroyed, the cultivation ruined, and extensive districts rendered unhealthy. The influence of these causes was slow in reaching the inhabitants of Calcutta: but those persons, who were exposed to the distress, incidental to the gale and inundation at Diamond Harbour, came to the hospital in a few days after its occurrence; and I believe, almost all those, who were stationed within the range of that inundation, suffered early and severely. A succession of patients from the ships that had been exposed, or wrecked in the course of the gale, crowded the wards of our hospital for many months. When the rainy season came on, the gradual approach of the formidable remittent fever, among the inhabitants of the neighbouring villages, gave warning of what was about to happen in this city. It is needless to relate at this day the alarming extent of the sickness which prevailed in July and August last; it is too well remembered by every one.

Besides, the causes of disease, arising from malaria, and generated by the inundation and high temperature, natives were exposed to the evils of famine in these districts, where the cultivation was destroyed: and they also suffered from want of good fresh water, as their tanks were overflowed and filled from the sea, the water being rendered brackish and unwholesome, within the range of the inundation, for the whole year. The effects of a contaminated atmosphere, and the influence of general causes of disease, were strongly manifested by the manner, in which fever spread among the more wealthy natives in Calcutta and its vicinity. The number of young persons in this class of inhabitants, particularly those between eighteen and thirty years of age, who suffered from the prevailing fevers, was very remarkable.

At the commencement of 1833, Bangalore appears to have been visited by a severe epidemic catarrh, for the following account of which we are indebted to the pen of the late Dr. Mouat;

Towards the end of December, a severe catarrhal fever, or influenza, as it was designated, appeared in the native corps at this station, and first in the 35th Native Infantry, which, in January 1833, affected very extensively the men, women, children and followers of the 13th Dragoons; as also H. M.'s 62nd regiment, as well as most of the European residents, their families and domestics in the cantonment. It remitted, or entirely ceased, in February, when cholera prevailed in the bazars amongst the natives, and broke out in March, amongst the Europeans of the 13th Dragoons, and H. M.'s 39th regiment, which had arrived in February, and replaced the 62nd foot; so that the observations made in the last year's report, were premature; and the unusual, continued and protracted drought had, at length, been attended by an extraordinary degree of sickness for Bangalore. Therefore, that which had been considered a deviation from the ordinary results of such altered seasons, has, nevertheless, turned out another instance of the strong influence, with which the physical circumstances, with which we are surrounded, modify the phenomena of animal existence, and predispose to those epidemical visitations, so destructive to health and life. Here follows a return of admissions, discharges and deaths,

with the Epidemic catarrhal fever, in H. M.'s 13th Dragoons, from 27th December 1832, to 19th February, 1833.

	Total ad- mitted, or treated.	Cured	Died.	Remarks.
Men of the regiment.....	120	120	0	{ Died on the third day after admission, with an oppres- sion of the chest.
Women ditto.....	17	17	0	
Children ditto	109	108	1	
Followers ditto	95	95	0	
Total..	341	340	1	

The various phenomena attendant on the former disease, were curious and interesting; but to draw conclusions, or to generalize extensively on those circumstances, would lead to a labyrinth, at best of ingenious conjecture, and, it may be of palpable contradictions. That its source was general and extensive, would appear by its attacking all classes, sparing neither age, sex nor constitution, and extending from the extreme of the Horse Artillery lines, to the fort at Bangalore: yet even here it had its anomalies, by affecting the native Horse Artillery, and entirely exempting the European Foot Artillery, about one hundred persons. It appeared in the 35th Native Infantry, and then in the other native corps; in H. M.'s 13th Dragoons and H. M.'s 62nd Foot, and their families and native followers; among several of the officers resident in the cantonment, as well as their families, and most of their servants or followers. The weather about this period was very trying to the frame; the sun extremely hot and powerful; the air cool, and even chilly; the nights particularly raw and cold, and the mornings foggy, with very strong north-easterly winds. As the weather changed, the disease gradually disappeared. Here, however, we come to no satisfactory conclusion, as in every climate, and in all states of the atmosphere, we see epidemic disease; and here the influence, though general and extensive, was local: for the malady was confined to certain corps. Many curious facts lead to a supposition, that it was infectious:—but again, the facts were so numerous to over-rule such a conclusion, that we incline to the epidemic origin of the disease from atmospheric influence, as the most satisfactory, or least contradictory, explanation. In whatever way propagated, however induced, whence arising, or how contracted, it was a curious fact, that almost all our men imputed its invasion to cold, generally caught, whilst asleep at night.

The same year was painfully distinguished at Bangalore, by its being the first, in which cholera appeared epidemically amongst European troops. Speaking of it, Dr. Mouat again says:—

No fewer than 202 men of the 13th Dragoons have been admitted with cholera during the last twelve months. * * * * * The disease

consequently, appeared in February—the first case on the 15th of that month; but it was not prevalent till March, though it continued all April and May, with a few cases in June, when it lost its epidemic character; and the subsequent seizures might be considered sporadic, such as we see at all seasons, and in every situation in India.

This relation between Influenza and Cholera has been remarked in Europe; and the fact of Cholera having, on this occasion, made its first appearance at Bangalore renders the coincidence more striking. The troops at Nussirabad presented, in October, 1833, the painful spectacle of an Epidemic attack of scurvy, which increased rapidly in November, December, and up to January 1834, when it began to decline. It had prevailed extensively fourteen years previously in the same cantonment. The commencement of the disease was preceded by a deficiency of grain and ghee amongst the men, owing to high prices. The most extraordinary feature of this epidemic, however, was the impunity from the disease enjoyed by the regimental and town bazars, thus dwelt on by Dr. McNab:—

The circumstance is not easily accounted for. There are numbers of poor miserable creatures, not only badly fed but destitute of the most ordinary comforts, which sepoys of the most precarious habits certainly possess. Why then should those, and such as those, half famished wretches, have enjoyed this singular immunity, whilst men, who were even noted as lovers of good cheer among their fellow soldiers, suffered, many of them, very severe attacks? The Sudder Bazar is situated midway betwixt the lines of the 17th Regiment, half a mile in rear of it, and the lines of the other three Infantry Regiments, about the same distance in front. Yet what could have protected this well peopled spot from the malignant influences, which so unsparingly visited its very vicinity? A magic circle must have surely encompassed it. The case was exactly the same with the regimental bazars. I do not believe that a single case of scurvy occurred in any of them. A few, and but a few, of the camp-followers shewed symptoms.

In Beawr, a station about thirty miles from Nussirabad, the same disease made its appearance in March 1833, but milder in its character. We are told however that “there was scarcely a man in the corps, who had not spungy and painful gums.”

Dr. Stewart mentions that a fever prevailed at Howrah in June and July 1834, so universally diffused, that it attacked “in turns all the Professors of Bishop’s College, with their families, students, and servants, in such sort, that it was at length resolved to break up the establishment entirely for two months.

1836 will always be remarkable in relation to Indian Epidemics, as the year, which witnessed the irruption or breaking out of the Pali plague; for it is hard to say whether it was imported, or arose spontaneously. Mr. Superintending Surgeon Panton writes thus to the Secretary of the Medical Board;

SIR,—Having requested Mr. Maclean on the 20th ultimo, to forward to me

whatever authentic intelligence he could obtain, regarding the sickness at Pali; I have the honour to transmit, for the information of the Medical Board, a copy of his letter, dated the 16th, in which the disease is described, as he witnessed it in numerous instances. The following are the symptoms and course of it, which resemble the mild variety of plague.

It begins suddenly with a slight rigor, or cold shivering, nausea, pain in the head and loins, followed soon by hot, dry skin, small and very frequent pulse, 132 to 150; considerable thirst. Eyes heavy, hazy, and often blood-shot; countenance expressive of much anxiety and anguish; tongue covered with a white, yellowish, or brown fur. Buboës in the groins, armpits, or neck, appear sometimes simultaneously with the fever, but commonly in the course of the first or second day—respiration easy, excepting in cases connected with a pulmonic affection. A remission of the fever, of longer or shorter duration, according to the mildness or severity of the disease, ensues towards the morning. Death occurs on the second day; in a greater number on the third; but rarely later than the fourth day. Two thirds of the number, attacked with the disease, are supposed to have died. In the greater number, the buboës do not suppurate: in some cases they increase rapidly in size, suppurate, and discharge pus. Increase of size in them without suppuration, is remarked as being favourable; they disappear gradually in persons who recover. * * * * * It is limited to the towns, in which communication with the sick has been held: villages, a kos only from Pali, continued free from it.

Assistant Surgeon Maclean, who was deputed to investigate it, writes thus to the Superintending Surgeon:—

In my former communications to you on this subject, I mentioned on the authority of native reports, which I have since found, by personal investigation on the spot, to have been, in the main, correct, that the disease in question, first appeared among the *chippas*, or cloth-printers of Pali; and that it subsequently attacked all other classes and castes of the inhabitants. In the course of five or six weeks, from its appearance, the disease having committed great ravages, and the daily mortality being still on the increase, all ranks of the townspeople became so much alarmed, that they began, in considerable numbers, to abandon alike their homes, occupations, and property, and to seek refuge in Jaudpur, Sujit, Kairwah, and other towns and villages within a circle of from twenty to thirty miles around Pali. * * * * * Of the thousands of persons, who quitted Pali five or six weeks ago, some were at the time labouring under disease, others fell sick on the road, or immediately after they had reached their destined places of refuge. For a short time after their arrival in the various towns, in which they had taken up their temporary abode, the sickness, which they had brought in their train, adhered to the refugees, without attacking the inhabitants of those towns. But this state of things did not long continue. The classes, with which the refugees had the most intimate communication (*baniyas* for instance) speedily began to feel the effects of the Pali scourge: and now there is not a town or village, to which the refugees resorted in any considerable numbers, which is not become a fresh focus of contagion, and in which the original malady does not rage with fearful vigour. * * * * * I had no means of ascertaining very exactly the rate of mortality from the Pali disease. It is certainly less considerable than I had been led to believe from the reports made to me by natives previously to my visit; still it is fearfully great—probably not less than two thirds of those attacked. The total number of persons, who have fallen victims to it in Pali, cannot yet be correctly known. The Hakim, with whom I had several conversations

on the subject, estimated them at five or six thousands. This is probably beyond the truth : but I cannot doubt, that about four thousand have actually died. The Chippahs originally amounted to between four or five hundred houses, or families—probably two thousand individuals of both sexes and all ages. Of this number six hundred and sixty-five have died. Supposing the population of Pali to have been nearly 15,000, and that it suffered in like proportion with the Chippahs, the result would be a mortality to the extent of more than the number I have stated above. * * * * *. It is certainly a disease hitherto unknown in this country. It is also almost unprecedentedly fatal. That it is contagious, appears to me to be proved by the whole history of its progress, since it first appeared among the Chippahs of Pali three months ago. Had it confined its ravages to Pali alone, or had it been common, or even known in the other towns, in which it has since appeared, *before* the Pali people took refuge in them, it might have been supposed to be a malignant fever, depending on local causes for its origin and continued existence. But when we see it starting up in every town, to which these persons fled, some of them actually labouring under the disease, some but just recovered from it, and some with the germ of malady still inert in their veins, the conviction, that it is contagious, is irresistible. It is evident, however, that the atmosphere of contagion is extremely confined. I believe a person might, with impunity, enter, nay, live, in those towns, in which many hundreds of the inhabitants are now labouring under the disease, provided he was careful to avoid personal contact with the sick, and visiting them in the small close chambers in which they lodged. I myself spent hours, in the middle of the bazar, surrounded by the sick, entered some of their houses, touched and examined their bodies as freely as if they had been affected with any common disease ; and *now*, after an interval of five or six days, during which I have undergone considerable bodily fatigue, I feel perfectly secure from any attack. It is not a little remarkable, and still further tends to establish the contagious nature of the disease, that in the smaller villages of the *immediate* neighbourhood of Sujit, no case of the "*gant ki mândage*," as it is called, had occurred, so far as I could learn on minute inquiry. In regard to the origin of this disease, I have nothing to offer beyond conjecture. Was it generated in Pali by the noxious exhalations from the low swampy edges of the *jhil*, or tank, immediately to the eastward of the town—or by the want of ventilation and cleanliness in its narrow, irregular bazars and alleys ? Or was the pestilential contagion brought in the bales of cloth imported into Pali from Bhaonagar, Surat, &c , and of which the Chippahs (among whom the complaint first began) are the principal purchasers ? Most of the cloth so imported is English : but it is possible, that some coarser kind of it, or perhaps silk, may be the produce of plague countries, and may have been brought direct to Pali from the coast without being opened—the sales having been effected by musters. The Chippahs call all the cloth coming from the coast *foreign* ; and know nothing of the particular countries from whence the different kinds are brought. The absence from Pali of the Sets, who import the cloth for the use of the Chippahs, prevented me from acquiring correct information regarding the various countries from which they derived it.

We regard this, in every respect, as the most remarkable Epidemic, which ever threatened to desolate India, whether viewed in regard to its origin, progress and termination, or to the unique fact of its never having been known here previously, or since—unless indeed the Mahamurri of Gurhwal be considered an excep-

tion. We much regret that more extensive data are wanting to enable us to examine it in all its relations.

Towards the close of the same year, an epidemic remittent occurred at Bareilly, thus described by Mr. Guthrie ;

It is reported that, about the year 1818, during the Medical charge of Mr. Evans, a similar fever prevailed, sacrificing 300 victims, re-appearing under Mr. Brown in 1818, causing great mortality from July to September ; which also paid a passing visit, under Mr Rhodes in 1834, of only a few days, destroying eighteen convicts. It is evident how very useful to us it would have been to have referred back to records concerning these : and it is therefore, on this account chiefly, that I am now induced to draw the following imperfect sketch. * * * * * The following will give an idea of the mortality among the Bareilly prisoners : and it has been equally severe among those from Pilibhit :—

In October	1836,	10	died out of	90	sick.
„ November	„	16	ditto	129	
„ December	„	26	ditto	161	
„ January	1837,	32	ditto	195	
„ February	„	24	ditto	245	

An Epidemic congestive fever was very fatal in December amongst the convicts labouring on the Great Trunk Road near Mynpuri.

1837 was distinguished by an Epidemic attack of Small Pox in Calcutta, which commencing in March, diminishing in August, and acquiring greater intensity in December, destroyed, before June of the following year, 1,548 lives.

Although excluding Cholera generally from our consideration on account of its yearly presence, we may remark that, in 1840, it appeared in a very severe form at Malacca, where its visits are uncommon. Dr. Oxley says :—

Our usual uniform salubrity has, however, been interrupted during the past year, by the visitation of an Epidemic Cholera, which made its appearance amongst us, about the end of the month of October. This so reasonably dreaded scourge, from its unexpected and unwonted presence, created a degree of alarm and depression upon the minds of the inhabitants of this settlement, not altogether without foundation, but certainly much greater than the actual ravages of the disease authorized, or would, in places subject to its invasion, have produced ; for, from all I can learn from careful inquiry, out of a population of about 14,000, including town, and suburbs, not more than seventy or eighty have fallen victims, from its first breaking out to the present time of writing. * * * * * Nothing remarkable occurred in the healthfulness of the settlement, until about the month of July, when an epizootic disease broke out amongst the swine. During this and the following month, it is calculated that upwards of two thousand pigs (within the precincts of the town,) fell victims to this unheard of disease. Animals, apparently quite well in the evening, were dead ere morning ; the symptoms appeared to be of a twofold nature ; many died of a sort of dysentery, generally fatal on the 3rd day. * * * * * This food (Pork) appears, however, to have been consumed with impunity for some time ; for the first case of the Epidemic, which occurred, happened towards the latter end of October, and excited but little apprehen-

sion. The violence of the disease fell at first upon the Chinese, who are the greatest consumers of pork. * * * * * A number of Chinese boats, loaded with an inferior sort of rice, came into the barbour, and disposed of their grain, bringing intelligence at the same time, that *several villages* on the coast, from whence they came, had been quite *depopulated* by the ravages of *cholera*. * * * * * Although all classes have suffered more or less from the visitation of the Cholera, it is somewhat singular that the troops, who live in the centre of the town, surrounded on all sides by the disease, have as yet been entirely exempt from its invasion, not a single case having occurred amongst them; whilst the convicts, living within a few yards of the Sepoy lines, have had thirteen attacked, out of 182, who reside in the lines.

In most remarkable coincidence with this attack was the Epizootic, which was clearly due to a common cause.

1843 was destined to witness the recurrence of Small Pox in Calcutta. It commenced in November of that year, and terminated in August of the following one, during which time 2,949 lives were sacrificed, raising the mortality of the city much beyond its average. During its prevalence in the capital, we are informed by Dr. Stewart that :—

Among the European and Native Troops at Dum-Dum, not a single case has appeared; and at Barrackpore only four cases, all in one regiment, the 8th N. I., in April and May. At Howrah, I am told by Dr. Macpherson, that the disease did not show itself previous to February, and not more than twelve or fourteen cases altogether came under his observation, in that populous district.

It can scarcely be believed that so contagious a disease would limit its diffusion to Calcutta: but owing to deficiency of record, we are unable to afford information in regard to any other parts of India.

Similar to all the other Epidemics, which have preceded it, its meteorological relations are obscure. Dr. Stewart's views, on this subject, are thus expressed :—

Like many others, I have sought to trace some connection between the course of the various Epidemics of Bengal, and the constitution of the atmosphere at the time, in particular years, and during particular seasons of deviation. But, though I believe the law of vicarious epidemy to be fully established, and the above sequence of diseases to be the common one in Calcutta, I do not feel warranted in deducing any definite conclusions from my own scanty observations, with regard to the special influence upon such diseases exercised by the varying hygrometric, electrical, and thermometric states of the atmosphere. It is, however, now well ascertained that the elements of heat and moisture in the atmosphere are incompatible with the presence of any of the exanthemata, in an active state in Bengal: and, with reference to vaccination, the conclusions are obvious. As to the occasional sporadic cases, or even general explosions of Cholera, which occur every now and then, in connection with a bad harvest, stormy weather, and a high price of rice, or some unusual but remarkable deviation from the ordinary course of the season, no legitimate inferences can be drawn from these.

One other observation, I think I am justified in advancing, without pretending to maintain its accuracy, beyond the field of my own experience, which is, that the particular constitution of the atmosphere, which, during the prevalence of Epidemic Small Pox in any season, determines the type and character of that disease in respect of virulence and malignancy, exercises considerable influence also upon that of the Epidemic, which succeeds or replaces it.

It is well worthy of remark that, towards the middle of May 1844, when the Small Pox was declining, Cholera made its appearance with unusual severity, marked with features of putrescency, such as have been seldom witnessed in India.

We have, on several occasions, already noticed the prevalence of Epizootic disease simultaneously with Epidemics. This was remarkably the case in the present instance. The following table, from Dr. Stewart's Report, in 1843-44, shows the intensity of the disease to have closely approximated to Small Pox, as regards season.

TABLE F.

Shewing the number of cattle, said to have died of *Mattah*, within the town of Calcutta, from 1st September 1843 to 1st June 1844 — Thannadar's Reports.

September.....	33	February....	543
October.....	19	March.....	126
November.....	125	April ...	11
December.....	429	May.....	13
January.....	934		

This mortality extended to the feathered race. Fowls and pigeons died in great numbers, dozens being taken out of their yards and holes every morning. The only visible marks of disease were swelling and redness round the eyes. Such a malady is not uncommon in Bengal, as all, who keep farm yards, can testify. It seldom, however, reaches to the extent we hear of on this occasion.

Dr. Stewart has most industriously investigated the Epizootic referred to, and well deserves the thanks of every student of Epidemic influences. Subsequent to 1844, numerous and fatal febrile Epidemics occurred to our armies in Scinde and the Punjab, which, could the circumstances antecedent to and attendant upon them be accurately investigated, would, we doubt not, be found in a great measure to have depended upon the unhealthy condition of the towns and stations, necessarily contingent upon our recent occupation of the country. It would appear, however, from the accounts which we constantly receive of the insalubrity of certain stations in the Punjab, coupled with statements of imperfect drainage, and the most reckless disregard of irregularities of surface, caused by deporting clay for brick-making,

that no systematic measures have yet been taken to remedy the evil, but that our soldiers are left to perish, with a blind reliance on fate.

We now arrive at a most remarkable disease, the Mahamurri, or plague of Gurhwal, which, although known to have existed for some years, was never investigated, until its ravages, in the rains of 1849, induced Mr. Strachey, the senior assistant commissioner of the district, to make a special report to the authorities, through whom the circumstance was brought to the notice of the Medical Board. Dr. Renny was, in consequence, deputed to investigate its character ;—a task, which the publication at the head of our article proves to have been conducted with a skill and courage, honourable to his service and himself. We learn from his notes that :—

This remarkable and very formidable distemper first broke out in the district of Gurhwal, in the province of Kumaon, in the year 1823: and a particular fact, arising out of the annual religious observances of the Hindus, serves to fix this as the exact time. The disease is not mentioned in Fraser's tour in the Himalayas, in 1820, and may be presumed to have been then unknown in the district. It has since prevailed endemically in some part or other of Gurhwal, and has occasionally raged with great violence, apparently as an Epidemic.

Its most remarkable appearances have been as follows :—It began near Kedarnath, in the snowy range, and for some years confined its ravages to Pergunnahs Nagpore and Budhan, which form the subject of the first report upon it, in 1834 and 1835. In the latter Pergunnah, it again prevailed in 1837, along the higher parts of the Pindar. In 1846-47, the Mahamurri found its way to the sources of the Ranigunga in Putti-sobhi, and devastated the village of Sarkote, elevated about 7,000 feet, on a high easterly spur of the great mountain Duduke Tali (10,300 feet above the sea). At the same time a village in Kumaon proper, near the source of the Hosilla in Putti Borake Rao, was visited. In 1847, a village, within fifteen miles of Almorah west, situated among the pine forests of the Secabi Devi range, was attacked. At the latter end of 1848, a few villages in Pergunnah Danpore, along the line of the river Pindar, were threatened with the disease; but the alarm subsided. On the whole, the year 1848 and part of 1849 may be said to have been remarkably free from the Mahamurri, throughout the province. During the rainy season of 1849, it broke out with great virulence in Patti of Chuprakote; and, although the disease did not spread through the country, it proved very fatal in particular villages, such as Murhari and Dudoli. A rumour has gone out, that the Mahamurri appeared at the last annual fair at Bagesur; but the occurrence is uncertain; and, from very particular enquiries made, the presumption is, that it has never reached that side of Almorah. * * * * * The Mahamurri is a malignant fever, of a typhous character, accompanied by external glandular tumours, very fatal, and generally proving rapidly so in three or four days; it appears to be infectious, and is believed not to be contagious. * * * * * The external swellings, suddenly rising, indolent, and not very painful, are the most characteristic proofs of the malady. Glandular swellings, in various parts of the body, the groin, axilla, neck, and even in the legs, are described as occurring: but, in the cases witnessed recently, as well as those of the few, who had survived an attack, the tumours, or buboes, if they can be so

called in that state of incomplete inflammation and suppuration, were only in the groin—a long diffused tumefaction with an enlarged gland in the centre, of the size of a nut. They are looked upon, by the natives as the most deadly sign of the distemper, and are really to be considered an unfavourable prognostic. * * * * * The most remarkable circumstance in the disease is the mild nature of the entire symptoms, under so rapid a termination;—little febrile or other constitutional excitement presenting itself, where death was certain in twenty-four or thirty-six hours. Such trifling derangement of the functions of health would be a startling and unaccountable anomaly, and not to be reconciled with the speedy fatal result, had not the same thing been observed in other Epidemics in India, and even in the plague itself. * * * * * The origin of Mahamurri is very obscure, in the primary causes of its arising in Nagpore and Budhan. The history of the pestilence in these Pergunnahs is still a desideratum; nor can it be attempted, in the short experience lately gained, to clear up the uncertainty that hangs over it. The disease is considered to arise from local causes: and, according to what is known of the fevers of hilly countries in all parts of the world, it takes on a typhoid form; when again the course of the seasons, or the state of the atmosphere, or other concomitant auxiliaries, are favourable to the propagation of the infecting miasm, the disorder spreads more generally; and, strictly in accordance with the characters of other epidemics, its attacks are uncertain and capricious, destroying, perhaps, one or more villages, while others not far off escape entirely; it has shewn also the usual Epidemic periods of commencement, violence, and decline. The exact seasons of its invasions are not fully ascertained; but, in the past year, it appears to have broken out during the rainy season, or towards the close of it; to have continued with more or less virulence, till the end of December 1849; to have re-appeared in another direction in March or April; and to have abated generally over the country in May 1850. If we are without the knowledge of the primary source of typhus, we have at least all the conditions, acting upon a great part of the population of Gurhwal, to which is rationally attributed the rise of such diseases in other countries; these are, to use simple terms, poverty, filth, and bad food, or starvation; and, if we examine these extremes more minutely, we shall find under each head sufficient predisposing causes for a general susceptibility to the putrid diseases in question; and the very slow improvement, in these respects, may also go far to clear up the extraordinary fact of so fatal a sickness having prevailed over a district for so many years. The poverty and consequent privations are understood to extend chiefly over the Northern Pergunnahs, situated near the snowy ranges, where the Mahamurri first appeared. The filth is every where—in their villages, their houses, and their persons. It destroys the otherwise pure quality of the air, and maintains ever round the inhabitants that contaminated atmosphere, so favourable to the condensation of infectious emanations. Their dwellings are generally low and ill-ventilated, except through their bad construction; and the advantage, to the natives in other parts of India, of living in the open air is lost to the villagers of Gurhwal, from the necessity of their crowding together for mutual warmth and shelter against the inclemency of the weather. The food of the majority is bad and insufficient. In the Northern parts, wheat does not grow; and, even where it does, the general food consists of the small grains—a poor diet, and not nourishing enough for a cold and moist climate: * * * * *

This is also the strongest instance, obtained on the spot, of the extreme virulence of this disease, as it prevailed last year, showing the frightful number of eighty-eight per cent. attacked, and the same proportion proving

fatal. It does not appear to have been so destructive in other places, where the inhabitants scattered themselves. * * * * *

Mahamurri has prevailed in temperatures, beyond which, it is known, that the plague is destroyed or suspended in Europe and Africa. The limit of activity for it is very small; Good* quoting from Sir Gilbert Blane, names the extremes 60° and 80°; Copland† gives lower numbers, fixing the scale from 35° to 75°. Now Mahamurri hitherto has appeared mostly in the villages, near to the snowy ranges: and one spot has been named, as high as 10,000 feet above the sea, which elevation must give a constant temperature low enough to check the plague; whereas the report is, that Mahamurri has been as virulent in such a climate as elsewhere. It may be freely admitted, that, at such an elevation, woollen clothing, if not openly exposed to the air and sun, might retain and communicate the virus of contagion, although it fails to do so in Egypt, in the healthy season; but it is more likely that the crowding together in houses, forced on the inhabitants by their poverty and the extreme cold, would give virulence to an infectious disease, even at such a temperature. Again we have seen that Mahamurri may exist, in its perfect malignity at heats, above the extreme range mentioned. At Bhungdar, on the 17th May, the thermometer, in the shade, stood at 83° maximum in the day; the place is on a detached hill above the stream, and freely open on all sides; at Mason, or rather at Mycoller near it, where Mahamurri occurred, situated on the same stream and higher up, but in a close confined glen, it may be affirmed that the heat was much greater, even a month earlier. At Deghat, about ten miles lower, on the same stream, in a tent nearly level with the bank, the maximum thermometer, on the 19th May, was 95° at three P. M.† * * * * *

The mortality from the Mahamurri is very great, not so much in actual numbers, as relatively to the small amount of population. The recent mortality has been estimated by the civil authorities to be probably 25 per cent. on the total population. Recent enquiries would show it to have been even greater; but the statistical details are most defective. In certain places the destruction has been very great, of which an example has been given, of fourteen deaths out of sixteen people in one place. In the village of Sárkote, in 1846-47, if the reports of the inhabitants are to be trusted, out of a population of sixty-five in all, forty-three died, two only recovered, and twenty escaped without infection. The strong proof of the fatal nature of the disease is the small number who recover; and upon this criterion, the Mahamurri might be named the most pestilent disease known. It seems, however, that on this point, exaggeration has probably been made; and this branch of the question needs further examination. Two men only were reported as survivors of this last Epidemic of 1849-50. One was brought to me, an inhabitant of Mahamurri; the other was heard of at

* *Good's Study of Medicine*. London. 1825. *Anthrax Pestis*.

† *Copland's Dictionary*. London. *Pestis Septica*.

‡ The following ranges of temperature, in several localities in Kumaon, have been contributed by J. H. Batten, Esq., Commissioner of the province. The mean temperature of Duddoli will be about 61°, and of Muhrari (exactly the same elevation as Kumaon) about 59° or 60°. The extremes 85° and 30° may be assumed for the greater part of inhabited Chuprakote; the thermometer falls to 25° sometimes, and *may*, perhaps, rise to 90°, but the latter must be *very* rare, even in the lowest part of Chuprakote, Lobha, and Chandpore. At Almora, the thermometer has been seen at 91° in a western verandah in June, and 82° at the same time in a northern, while inside the house it has been 77°. The extremes this year in the out-of-doors shade at Nainee Tal have been 18° and 80° (St. Loo, north side of the Tal). In the hills the thermometer has been observed at 105° in a tent, and 88° in a grass hut on the same spot.

Bergaon; two more men were brought to me, said to be the only survivors of the Epidemic that raged at Sarkote, in 1846-47; no others were to be found, as it was affirmed, in the large tract of country gone over and examined. * * * * *

The same paragraph further notices a curious fact, fully believed in by the natives, up to the present time, "that every where it appears first to have attacked the rats, and then the men."

No other animals have been observed to be affected in the same manner, or by the Epidemic, generally; and this belief in the destruction of the rats is so universal, and so confidently asserted, that it is difficult to withhold giving credence to the fact. * * * * *

Several authors have, at various times, propounded, as the causes of Epidemics in India, different terrestrial influences affecting the several districts concerned; and, in regard to these, it may suffice to say, that by the future enquirer may be found in Gurhwal all the sources of such influences. Malaria is rife in every valley and ravine the rapid geologic changes, so conspicuous on the surface of these hills, leave it to be inferred that the same, or other chemical actions, are going on internally, and may give rise to morbid products; terrestrial electricity, assigned as a cause in southern India, may be elicited by these changes or by other agency; volcanic air, proposed as the origin of sickness in Scinde, cannot be wanting; for, though no active volcanos exist, there occur frequent earthquakes* to facilitate the discharge of volcanic exhalations. But upon all these subjects, discussion is avoided; the materials are deficient, even if there were felt the inclination and ability to pursue it. The object of the present investigation has been entirely practical; and it may be left to those, who come after, to put forward theoretic opinions upon this disease * * * * *

Fourteen died at a place in the forest, half a mile or more from Duddoli, called by two names, Khor or Gemindeal, and respecting which I had the best description, yet given to me, of the career of the sickness. Here were only two houses, or long low huts, occupied by two separate families, connected with each other, the heads being two brothers (composed of sixteen souls in all, old and young); and the present instance exemplifies their crowded mode of living; for these two huts had to contain, besides sixteen individuals, thirty head of cattle, large and small, at the worst season of the year. In these two huts, the Mahamurri commenced about ten or eleven months ago, corresponding to the time it appeared in Duddoli, and the full circuit of the disease was here better seen than on any other occasion brought to notice; for in general, the healthy or un-attacked fly to the near hills or forests, leaving the sick to their fate; but at this place, the sixteen residents kept together, till fourteen died, and one adult only, a man of about thirty years of age or more, with his female child of six years old, survived. * * * * *

All the natives agree hitherto, that there has been no particular disorder or mortality among their cattle, but they universally agree that the Mahamurri is preceded or accompanied by a great mortality among the rats in their houses

It would thus appear that the Mahamurri is closely akin to the Pali plague, previously described. The latter, however, broke out in a district, between two and three-hundred miles distant, in the year 1836, and, having existed for some months,

* Two earthquakes were felt this year, 1850, generally over the province of Kumaon—one on the 15th April, the other on the 13th May.

never re-appeared: whilst the former, it is particularly stated, was never known until 1823, since which time it has occurred more or less every year, up to the present, and, according to Mr. Batten, Commissioner of Kumaon, is yearly progressing towards the plains.

What a boundless field of interest does this strange malady present to us, not unaccompanied by the exciting impression that it may, one day, leave its fastnesses in the hills, and roll down a torrent of death and desolation on the plains of India!

It will be observed, that Dr. Renny lays much stress *upon the dirt and filth abounding in its habitats*, affording another argument, if such were necessary, for the urgency of some universal system of Sanatory Reform.

Thankful as we are, for the statesman-like appreciation of death and danger to the population and of the needs of science, which has secured us this able report of Dr. Renny's, we cannot forbear calling the reader's attention to the fact, that this dire plague, which seems to steel the heart of man against his brother, and to make the mother loath and leave her child—thus degrading reason below the instinct of the brute—has raged for nearly thirty years, without exciting any further activity, than a request, in 1836, to the revenue officers of the affected district to report upon it, with one of whose replies is enclosed a letter from a medical officer (Dr. Bell), stating all he knew on the subject—from hearsay! Never was a circumstance so illustrative of the absolute necessity of some systematically conducted Pathological survey of India, such as is suggested by Mr. Bedford, and of which, we shall presently speak. How much time would have been suffered to elapse, before a searching inquiry was instituted, had this Epidemic taken the moral form of a refusal to pay revenue? and yet the cases are not widely different. The latter would have been loss in pocket to the State; the former loss of life to the ryot.

The last Epidemic to be noticed is one, to the fatality and distress occasioned by which, we have (many of us) had the opportunity of testifying. In November 1849, after the lapse of five years from the previous attack, Calcutta was visited by Small Pox, which, before June 1850, had destroyed 6,100 lives, although, in the intervening period, the annual mortality from the same disease did not average above thirty. The advent of such a pestilence spread, as may naturally be supposed, dismay in all directions, and gave rise to an order from Government to form a Commission for the purpose of investigating its character, and devising measures calculated to prevent its recurrence. The discussion of the able Report, which resulted, must be defer-

red until a future occasion, where it can be considered in its whole bearings. We may remark, however, that interesting as the document is, and replete with sanatory suggestions of the highest value, we would willingly have received further information regarding the spread of the disease. Did it arise in Calcutta, or was it imported, and attain such virulence, as it displayed, from a crowded population, surrounded by unsanatory circumstances? Did it extend to neighbouring towns and stations? If so, at what rate of progress, and where did its ravages cease? Was there any coincident Epizootic? Such knowledge is essential to the true understanding of an Epidemic; but such unfortunately is denied us, even regarding a disease of so recent a date.

Such is an imperfect sketch of the pestilences, which have afflicted India during the last five and twenty years, as far as the Transactions and Small Pox Reports enable us to note them. Others may have occurred, either simultaneously, or at earlier periods; but no record of their existence is attainable.

Having thus, we trust, impressed upon our readers the great and pregnant fact, that, besides the large amount of illness invariably present in our population, as a consequence of ever present climatic peculiarities and deficiency of the sanatory arrangements, which we shall hereafter proceed to discuss, there happen, at undetermined intervals, fresh and intense accessions of disease, leaving very few unscathed—it only remains for us to take into consideration the best mode of applying our knowledge to the great purpose of Sanatory Reform.

Our observations are chiefly intended to apply to the Mofussil, in as much as the metropolis rejoices in distinct and separate legislative enactments for its own especial benefit; but their spirit will be as applicable to the one as the other.

The health of communities, whether viewed as a nation, or as the population of a single town, is determined by

1. Ordinary, and in a great measure, unalterable atmospheric peculiarities, constituting climate.

2. By the occasional visitation of diseases, different from, or exhibiting a largely increased intensity over, those usually prevalent. This class has, owing to its wide diffusion, obtained the designation of Epidemics. There can be little question that a perfect understanding of the laws, which regulate their course and govern their intensity, would enable us to lessen the mortality which now attends them. How is this to be attained? Not by a vague and desultory system of observation and chance record, such as we have had to deplore throughout our sketch, but by a regular and settled plan,

superintended by a responsible officer, such as is recommended by Mr. Bedford, in the pamphlet at the head of the article. He says, "Thus in recording the progress of an Epidemic attack of Small Pox, or Cholera, it would be essential for the Deputy Registrar to ascertain the place and date of its commencement, the extent of its deviations, its rate of progress from one zillah, or, if possible, one village to another, its attendant meteorological phenomena, its mortality, its peculiar habitats, its modifications in different latitudes or altitudes, its concomitant Epizootic disease, if any, and the diseases of plants, which may accompany it."

3. By hereditary or personal taint, in which unhappy circumstances but little improvement can be hoped for.

4. By non-obedience to the physiological laws governing private health, a disregard of which will always have a large influence upon the existing character of disease.

5. By non-obedience to the laws which govern public health—a matter of enormous moment, when we see by unexceptionable evidence, the waste of life hitherto attendant upon their being ignored; and of grave interest to a country like India, the Government of which is *directly responsible* for the lives and health of 500,000 human beings, who are either bearing arms in its defence, or incarcerated in its Jails. Nor does the responsibility end here.

Our central and local authorities are, of necessity, so despotic, and our Indian fellow-countrymen so ignorant of the demands of public health, and so disinclined by nature and relative position to make the first move in any great system of reform, that they become the absolute arbiters of life and death to 100,000,000 of mankind, and between them must be shared the imputation of every life, which is sacrificed unnecessarily.

The Supreme Council has done its best to facilitate the Sanatory Reform, for which we plead, by an Act to be subsequently examined: but the Government must render this effective by appointing an Inspector General of Health, to see that its provisions are carried out. If this be neglected, the Act in question may be viewed as consigned to the safe keeping of the Government Gazette, from which it will never emerge. The cause of this apathy to a subject of such deep importance is to be found in the fact, that a conviction of the strict relation between unsanatory conditions and certain forms of disease is not yet brought home to those, who have the power to aid in the great movement which we advocate.

Throughout the extracts we have given, the writers on Epidemic diseases have chiefly dwelt on their meteorological rela-

tions. The atmospheric constitution of the seasons plays, doubtless, a very important part in their development: but there cannot be a doubt that narrow and impure streets, imperfect drains, swamps and dirty tanks, with various other municipal evils, hereafter to be mentioned, modify, in no inconsiderable degree, the character of the disease. Endemics, such as Intermittent and Remittent Fevers, with which we may combine Cholera, as being at present naturalized in this country, are due, we conscientiously believe, almost entirely to the defective sanatory state of the rural districts. Those, who have lived in the vicinity of the Cambridgeshire or Lincolnshire fens, must know by tradition, how Intermittent Fever once prevailed; and how, by drainage and cultivation, the health of the district has improved, so that an instance of that malady is now run after as a wonder. Bengal may be regarded as one huge marsh, abounding with malaria, poisoning quickly, as in cases of Remittent, or slowly, as in Intermittent Fever, all the residents, within its bounds, who are unfortified by good dwellings. We would that, for a single hour, some tutelary genius of the land could endow with physical consistency the noxious exhalations, hourly rising from each stagnant ditch, each dirty tank, and festering hole, within the limits of a single town:—we would, that our perceptions might be so increased, that the insidious vapour could be made visible to our corporeal eye, wreathing itself in fatal eddies round the sleeping peasant, entering with the air he breathes, vitiating his blood, and heating it to feverish paroxysm, then circling to his spleen, which becomes its abiding place, until driven out by death! We would that, for a single hour, this, which occurs invisibly with each succeeding minute, could be seen and noted:—then would the beholder be truly horror struck, and devote each after moment of existence to the task of removing the causes of such dire distress;—and this effort would constitute Sanatory Reform. What says Dr. Stewart of evil municipal arrangement, as affecting Small Pox?

It is foreign to my present object, to describe minutely the well known evil effects on public health, produced throughout the whole native town, and to a frightful extent in certain Thannas, by the original defects and errors in the plan of the city, the distortion, the malposition and mis-direction of its principal thoroughfares, the narrowness and confinement, and consequent bad ventilation of its lanes and gullies, the bad construction and faulty arrangement of its dwelling houses, the smallness of the sleeping apartments, the perpetual dirty and damp state of the court yards, the crowded condition of the inmates, the disgusting stench from the public cesses and privies, the stagnation of tanks, drains and sewers, the scantiness and badness of the water supplied for domestic uses, &c., &c. All these matters have been often pointed out and lamented, talked of for a

time, forgotten, and re-discussed on the recurrence of some sweeping pestilence, to be again consigned to temporary oblivion. The attempt to remedy them seems to be abandoned as too arduous and almost hopeless. The origin of all these evils, their number and extent, with descriptions of their actual effects, and plans for their removal or amelioration, have, from time immemorial, engaged the consideration of individuals and of Governments; and are they not all fully chronicled in faithful and filthy detail, in the recently printed Report of the Municipal Committee, and in the ample pages of its voluminous appendix? Sufficient information on the subject, for general readers, will be found in the able exposition of their results on civic health, contained in Mr. J. R. Martin's "Topographical Memoir of Calcutta." His predictions, founded on close and long observation of the devastating mortality, caused amid the dense population of Bengal "rice eaters" by the combination of such natural and artificial elements of disease, as the climate and town of Calcutta present, have been abundantly verified during the late Epidemic, and have made it sufficiently easy to point out those districts and Thannahs, where pestilence would surely be found most rife, and death's harvest greatest.

Our illustration has been limited to Fever: but Dysentery and Rheumatism have been, with great show of truth, assigned to the same cause. The most recent researches too on Cholera tend to prove its close connection with miasma and malaria. On the subject of this mutual relation, Dr. Mackinnon, in the Transactions, Vol. VI. says:—

The year 1831 was remarkable for a degree of sickness and mortality, beyond what had been observed in Tihhūt for many years. There were many deaths from cholera in June, July and August; and remittent fevers prevailed and proved very fatal during the months of September, October, November, and December. The most fatal forms of cholera were observed in *unhealthy and low* situations; and it was very destructive after several heavy falls of rain about the middle of June. Some villages are stated to have been literally depopulated. It was observed that the quantity of stagnant water was greater than usual, in the district during this season.

This is strong evidence from so acute an observer as Dr. Mackinnon. Dr. Ranken, in a paper on Public Health, says, that, in his work on Central India, Sir John Malcolm states, "Cholera Morbus to have been always endemic in certain jungly parts of Malwa." He continues "the same is related of a marshy tract near Chittagong, in the Bengal report on that disease; what have these places in common but Malaria?" Again Dr. Hardie, in a paper on the medical topography of Udipore, writes thus:—

I have here taken it for granted, that Cholera is produced by malaria; and though, some may, perhaps, feel disposed to dispute this point, I suspect that any apparent difference of opinion, which may exist in reference to this question, will be found to be more in *words*, than in reality. * * * * * That Cholera is produced by some such cause, all who are acquainted with its history must, I think, allow; and the peculiarly capricious course, which this disease sometimes follows—sometimes attacking those on the one side of a river, sometimes those on another, sometimes raging round particular

spots, while the inhabitants of these spots escape entirely—clearly indicate that the generation of the poison, which causes this disease, is local, and that it depends more upon a peculiar state of the soil, &c., than on the state of the atmosphere. This doctrine, first promulgated by Sydenham, has found many opponents: and it is only of late years that it has met with that support, which it certainly deserves.

I am not prepared to prove, that it is exactly the same poison, which produces both fever and cholera; but I apply the term malaria to the cause of both—intending by that term, to express that the substance, which occasions all diseases of this nature, is produced by certain combinations of local circumstances in peculiar situations; and that, whether there be only one or more substances capable of producing the same or similar effects, our knowledge of the subject does not entitle us to say.

Speaking of the origin of Cholera in 1831-32, we find from the Report of the Metropolitan Commission that:—

“In Moscow, the place in which it principally prevailed, and was most mortal, was a low quarter, surrounded by a bed of the river Muskwa; at Breslaw it first attacked and principally ravaged that part of the town, which is low and marshy, and which is the constant seat of intermittent fever.

The foregoing extracts will, we trust, go far to prove it highly probable, that Malaria is the common parent of Fever and Cholera. Such a view derives additional force from the circumstance of the latter disease clinging to and revisiting certain localities. The most recent and striking observations on the subject are those of the Board of Health, whose Report heads our article.

As was anticipated and predicted, Cholera, during its recent visitation, returned to the same countries, and the same cities and towns, and even the same streets, houses, and rooms, which it ravaged in 1832. It is true, that many places have been attacked in the recent, which escaped in the former, Epidemic: but very few, indeed, that suffered then, have escaped now, except in some few instances, in which sanatory measures had, in the meantime, been effected. In some instances it had re-appeared on the very spot, in which it first broke out sixteen years ago. The first case, that occurred in the town of Leith, in 1848, took place in the same house, and within a few feet of the very spot, from whence the Epidemic of 1832 commenced its course. On its re appearance in the town of Pollockshaws, it snatched its first victim from the same room, and the very bed, in which it broke out in 1832. Its first appearance in Bermondsey was close to the same ditch, in which the earliest fatal cases occurred in 1832. At Oxford, in 1839 as in 1832, the first case occurred in the county jail. This return to its former haunts has been observed in several other places; and the experience abroad has been similar. At Gröningen, in Holland, the disease, in 1832, attacked, in the better part of the city, only two houses; and the Epidemic broke out in these two identical houses, in the visitation of 1848.

In numerous instances, medical officers, who have attended to the conditions, which influence its localization, have pointed out, before its return, the particular courts and houses, which it would attack. “Before Cholera appeared in the district,” says the medical officer of the Whitechapel Union, speaking of the small court in the hamlet, “I predicted that this would

be one of its strongholds" 18 cases occurred in it. Before Cholera appeared in the district, the medical officer of Uxbridge stated, that, if it should visit that town, it would be certain to break out in a particular house, to the dangerous condition of which he called the attention of the local authorities. The first cases, that occurred, broke out in that identical house. In a place called Swain's lane, in the healthy village of Highgate, near London, there is a spot, where the medical officer felt so confident that the disease would make its appearance, that he repeatedly represented to the authorities, the danger of allowing the place to remain in its existing condition—but in vain. In two houses, on this spot, six attacks and four deaths took place; yet there was no other appearance of the disease during the whole Epidemic in any other part of the village, containing 3,000 inhabitants.

Before the appearance of the disease in this country, we warned the local authorities, that the seats of the approaching pestilence in their respective districts, would be the usual haunts of other epidemics. Our conviction was founded on evidence, to which recent experience has added a degree of force, that may be judged of by the following examples.

In the year 1838, a report was presented to the Poor Law Commissioners, describing certain localities in Bethnal Green, in which typhus was then, or recently had been, so prevalent, that it had attacked, in some streets, every house, and in some houses every room. From that time to the present, these localities have been the special seats of fever, and of every other Epidemic, that has chanced to be prevalent. From Dr. Gavin's careful and painfully descriptive report on the recent progress of cholera in this district, it appears that in one of these places (Old Nichol street,) in twenty-three houses, fifty persons were attacked with cholera, of whom thirty-three died—three deaths having taken place in one house, and four in another—the visitors finding besides, nine cases approaching to cholera, and 197 cases of diarrhœa. In a neighbouring street, Collingwood-street, six deaths took place in one house. Taking together ninety-nine houses in this immediate locality, the deaths from cholera amounted to the enormous number of 147; being in the ratio of $1\frac{1}{2}$ deaths to each house. In Beckford-row, in the same district, consisting of sixteen houses, there occurred, in the year preceding the outbreak of cholera, twenty-three cases of fever and one of erysipelas: and, on the outbreak of cholera, eight persons perished of this disease, and two others of diarrhœa. In one court, in Rosemary lane, Whitechapel, notorious for the number of fever cases constantly prevalent there, out of sixty inhabitants, there occurred thirteen cases of cholera; that is twenty-one per cent of the whole of the population. In a place called the Potteries, at Kensington, where the causes of disease are so concentrated and intense, that during the three years, ending December 31, 1848, there occurred seventy-eight deaths out of a population of 1,000, the average age of all who died being under twelve years, and where, in the last year, the medical officer attended thirty-two cases of fever, twenty-one persons perished of cholera. These deaths took place in the same streets, houses, and rooms, which had been again and again visited by fever; and the medical officer pointed out rooms, where some of these poor people had recovered from fever in the spring, to fall victims to cholera in the summer.

Dr. Milroy says:—

From an instructive report, published two years ago, by Dr. Cookworthy, the senior physician of the public dispensary at Plymouth, presenting a topographical account of upwards of 2,000 cases of fever, which had occurred in that town, I find that the two localities, that stood highest on the

list, were Tower-street, where, in 1832, the cholera raged with the greatest violence, and Stone house-lane, which was so severely visited last summer

Mr. Noble of Manchester, says:—

The great bulk of cholera cases, that have arisen in my district, have been in localities distinguished as the *habitat* of fever.

Much evidence to the same effect has been recorded, by our superintending inspectors in their preliminary inquiries into the condition of towns, petitioning for the application of the Public Health Act. Thus, Mr. Ranger, in giving an account of Barnard Castle, among other instances, states the following;—there is one particular house in Galgate, notorious for its unhealthiness; whenever typhus is in the town, it always prevails in this house; in three years, there have been nine deaths in four rooms. There is always an accumulation of filth in the cellar, which the occupiers are in the habit of removing, from time to time, in pails. In this house, there occurred three cases of cholera, all of which proved fatal within twenty-four hours.

In Swinburne's, alias Peart's, yard, containing eleven houses, occupied by thirty-five inhabitants, there being to the houses no outlets at the back, and but one privy for the use of all the occupiers, fifteen persons died of Cholera. Mr. W. C. Russel, medical officer of the Doncaster Union, states that cholera, typhus, scarlet fever, measles, hooping-cough, erysipelas, and remittent fever, all prevailed in the same localities.

"In Whippingham, the cases of cholera and diarrhœa, which occurred, were all in the fever localities."

Such evidence can hardly leave a doubt upon the mind that the Cholera and Fever tracks are identical. If this be once assured, we may safely look forward to the day, when both shall disappear before scientific skill, and India be rid of the two fell-est scourges, that ever walked the earth. But why should we hesitate uncertain upon the threshold? The question of their connection might be settled in twelve months by a mapping out of the localities affected by them, as recommended by Mr. Bedford. If the results on trial prove confirmatory of the theory, Cholera will be brought into the category of preventable diseases:—or, putting aside the universality of the opinion that Intermittent Fever is due to removable causes, we have philosophical proof afforded by Dr. Dempster, that Spleen disease (an undeniable consequence of Intermittent Fever) exists in an intensity, directly proportional to the vicinity of tracts of malarious character. If therefore Fever be clearly traced to certain unsanitary conditions of the soil, and Cholera be shown invariably to select the same localities only, we may safely regard the latter as a disease susceptible of annihilation. We cannot claim the same companionship for Small Pox, which seems far more erratic in its course, varying with each Epidemic attack; but we may conclude, on Dr. Stewart's authority, that dirt, imperfect drainage, and over crowding, play an important part in its development and dissemination.

The advantage of a different state of things is admirably demonstrated by the condition of Fort William, during the Epidemic of 1849.

The very remarkable healthiness of the native troops and residents in the Garrison of Fort William, during the past eighteen months, while small pox was decimating the surrounding population, is attributed by Dr. Montgomerie (Appendix page xlvii) mainly to the exclusion of all the known sources and carriers of contagion, by means of the admirable system of drainage and sewerage, now effectively adopted within and around the walls of the Fort, the strict enforcement of perfect cleanliness, and a free ventilation of the Barracks. It has also been greatly owing to the careful avoidance by the soldiers themselves, of all unnecessary intercourse with the towns people, and to their confining themselves entirely for the supply of their wants to the well kept, and well superintended military market place, called Cooly Bazar, in the neighbourhood of the Fort, which, in consequence doubtless of its excellent regulations, has been almost entirely free from the small pox this year, as on a former occasion. To the same causes, undoubtedly, and to the general high discipline of that fine corps, H. M.'s 70th Regiment, in respect of cleanliness of person and healthful exercise in the open air, must be in a great measure ascribed the almost entire exemption from small pox of this corps, which has garrisoned Fort William during the whole of the past year; though to the inestimable protection and modifying power of vaccination is owing the fact, that but one casualty from the disease has occurred in the regiment, mustering, as it does, 1,168 individuals, including women and children.

Could we but hope, by one well regulated system, to abolish simultaneously those fell scourges of the Indian race, what a victory would be ours ! Fever prostrates its victims day by day, with slow deliberation. Cholera gives little time for thought; and thence the horror of its sway.

Have any of our readers ever seen an Indian town stricken with this plague? Have they left the broad highways, and visited the huts amid the jungle, where mothers lay dying, with a child breathing its last cold gasp on either arm, whilst other sufferers implore their aid in all directions? Have they been mingled up with crowds of pilgrims, hurrying from the Ganges, whose trail, along a road of thirty miles, was formed by dead and dying fellow creatures? Such scenes are not the occurrences of a century, borne aloft upon the wings of history to be viewed by after ages in quailing awe, but facts of every day's existence in Bengal, and cognizant by all men from the day of their arrival in the country, until, at last, their occurrence is regarded as a matter of course, and no steps taken to effect improvement. And what has been done to relieve this mass of human ill? What commissions have been formed for its investigation? What rewards have been offered for a remedy? What state honours have been promised to the man who should stay the sword of the Destroying Angel? Not one of all these. With the

exception of some special reports, in reply to a circular of the Medical Board, from local officers, we have folded our hands in meek complacency, hoping for impunity for ourselves and those dear to us. The battle cry announcing an enemy's attack, the bells in ringing out the near approach of fire, would rouse each heart to superhuman effort; but disease, armed with tenfold powers of destruction, is quietly awaited in an easy chair, and scarcely an arm is raised against it.

Oh, for a tongue of Demosthenic power, or a pen flowing with fiery eloquence, to prove the truth of all that we have so feebly urged! We trust, however, that the evidence, which we shall now adduce in connection with our detailed proposition for reform, will force its way to everlasting remembrance and conviction. The great end and aim of Sanatory Reform is the economy of life and health. Before this expression can be understood, we must lay down a standard of inevitable vital expenditure, all excess above which must constitute waste. Two per cent per annum is the standard set up in England; and the fraction in excess, which obtains in the total mortality of the United Kingdom, gives an annual waste of about 60,000 lives:—that is to say, this large number of deaths occurs annually from diseases due to imperfect sanatory conditions. But the suffering does not end here: for every death from preventable diseases, there are, we are assured, on the most moderate calculation, twenty attacks of sickness. This calculation alone affords 1,200,000 annual cases of disease, which never should have occurred. Whether this golden standard of mortality can ever be reached in India, it would be premature to guess. Judging by the very imperfect data we possess, an annual decrement of 5 per cent. is what obtains amongst the free population surrounding us. But we can at least try for it.

On such a subject as life and health, prolixity may well be pardoned: but having glanced at the history of Epidemics, and cursorily examined them in their meteorological and municipal relations, the task devolves upon us of inquiring into the health and economy of Indian towns—an almost unbroken subject. Efforts have now and then been made, it is true, by active magistrates to cut away the jungle, repair the roads, and cleanse the principal streets; but although the highways, as an exceptional case, are looked after, we venture to assert that the bye-ways are a mass of reeking filth, the untouched legacy of a thousand years of sanatory neglect. How powerful for evil such a state of things must be, and how it may be remedied, we proceed to shew.

Sanatory Reform in its most extended sense embraces a

consideration of every Hygienic measure, including vaccination: but the latter is so vast a subject, that we must leave it for future consideration, limiting ourselves at present to municipal matters.

ROADS AND STREETS form the keystone of municipal improvement and Sanatory Reform; but let those, who have taken the trouble to investigate the interior of an Indian town, say in what condition they are to be found during the rains. Of a most insufficient width, twisting in all directions, ranging from twelve to twenty feet in breadth, and composed solely of the natural soil, they become, after a heavy fall of rain, one sheet of tenacious mud, which, from the imperfect ventilation, dries but slowly. In some of the most neglected towns, ruts six inches or a foot in depth will occasionally present themselves by way of variety. So much for the rains. The hot season scarcely improves them; for what was mud now becomes dust, which, obedient to every puff of wind, flies about in all directions, blinding the residents, and constituting a considerable source of annoyance to any stranger, who may wander by. In cases, such as we describe, metalling should be universal. Every road within the town limits should be so repaired at once: the result might appear rather a municipal than a sanatory gain; but such is not the case. The advantage would be of a united kind. Magistrates and civil surgeons, the natural guardians of public health, would be enabled easily to penetrate into nooks and corners, which are now unknown to them. Dirt would thus be seen; and all the abomination, concealed by narrow and impassable roadways, brought to light.

The rights of property are sacred up to a certain point: but as the few must concede their wishes to the welfare of the many, advantage should be taken of fires to widen and make straight the streets. No main road of a town should be less than fifty feet in width, from house to house. This generally constitutes the principal bazar, and, in commercial districts, is traversed every hour of the day by hackeries, bearing bales of cotton and other bulky goods, which are subsequently deposited before the merchant's door. Natural ventilation from the prevailing winds can only be attained in full perfection by a system of straight lines: and full access of the breeze, so mercifully given to Bengal, is essential, be it remembered, to health. In Europe, a very little modicum of wind may well suffice: but here, where stagnation of the air is almost equivalent to putrefaction, every facility for its free passage is demanded.

HOUSE NUMBERING.—In a sanatory, no less in than a social, point of view, a visible enumeration of all houses within the limit

of town *muhallas* is essential. Without some such positive index to locality, investigation into the contagious property of Epidemics is impossible: nor can we project the Fever, Cholera, and Malaria maps, which have been suggested by Mr. Bedford. Such a system of house numbering would afford no mean aid to civilization, by facilitating postal delivery: and this is a matter of no small moment, at a time when Government meditates the sacrifice of a part of its revenue, in the hope of stimulating correspondence. We should like to obtain an accurate return of the number of letters "not delivered," or of the hours wasted in search by new delivery peons, in any given time, during a single month, from the addressee of letters not being known. Add to this the length of time occupied in the search for individuals;—and ample proof will be afforded of the necessity of house numbers. In case of its adoption, however, we would enter a *caveat* against the practice of Cossitollah, where every man, who changes his residence, carries his number with him; and thus the anxious seeker for some particular tradesman, instead of finding the house numbered by the authentional progression likely to facilitate his search, is wearied out of his seven senses, if he have so many, by sixes being jumbled up with ones, and tens with forties, in the most distracting way. Indeed, if we mistake not, the meditative traveller will even now find one house, whose owner, being evidently in a state of high perplexity as to his legitimate "belongings," and vacillating between a five and nine, has compromised the matter with his conscience and his customers, by inserting one within the loop of the other.

We know not to whom the department of house "numbers" in Calcutta may belong; but we do know that such a state of things would be a disgrace to the humblest village in England.

HOUSES.—Of Houses, we have on this occasion but little to say. Their consideration belongs to private Hygiène: but we may remark that much good, even in a public sense, would be effected by increasing their means of ventilation. In many houses, as at present built, the doors and windows are all on one side, whilst the opposite exhibits no aperture for the passage of air.

DRAINS.—Of all circumstances determining disease, few are more powerful than ill constructed and imperfect drains, whether viewed as conduits for the natural rain fall, or as means of removing fluids, impregnated with animal and vegetable matter. We turn to what our most recent authority, the Report of the General Board of Health, says on the subject;—

The object of efficient drainage work is two-fold; first, the removal of decomposing matter in suspension in water; and secondly, the removal of sur-

plus moisture. But ample experience has proved that drainage, empirically conducted, in the hands of those who have given no special attention to the subject, increases the evil intended to be obviated, by extending the noxious evaporating surface, or by shifting the decomposing matter from one place to another. The superintending inspectors, in their reports on the various towns they have examined, concur in stating that the force of fever and of cholera in general falls on those localities which are without drainage, or in which the drainage, that has been attempted, has been so unskilfully performed, as to have increased the evil. Dr. Sutherland and Dr. Clark give a remarkable example of this in their reports on Bristol. Dr. Sutherland, in describing the condition of certain courts, covering a piece of land, fifty-six yards in length by thirty seven yards in breadth, and containing sixty-six dwellings, in which there occurred forty-four deaths from cholera, says :—

“ A more deplorable event, perhaps, never occurred than these tables describe. A very slight consideration of the whole circumstances is, in my opinion, sufficient to prove that this great sacrifice of human life was occasioned by ignorance, or negligence, as flagrant as any which, from time to time, gives rise to railway, or other, accidents. A glance at the plan will show that something like sanitary improvements had actually been contemplated ; and no doubt, it was believed, that the object would be attained, if only a sufficient number of drains and privies were constructed. Like every other step taken in a false direction, the so-called improvements increased the evil they were intended to mitigate, and, with the other circumstances above detailed, caused the untimely death of many innocent persons.”

The evidence of Dr. Rigby, physician to the General Lying-in-Hospital, York-road, Lambeth, before the Health of Towns Commission, is very interesting, and conclusive as to the importance, both of drainage and ventilation. Puerperal fever is shown in the clearest manner to have been connected with neglect of these important measures, and to have been removed by their enforcement.

“ I am at this moment,” says Dr Rigby, “ attending a lady in confinement (in the Mary-le-bow district), whom I have, with some difficulty, rescued from an attack of puerperal fever, which threatened to assume the malignant form. On being summoned to her when in labour, I was struck with the offensive drain effluvia, which not only pervaded the lower parts of the house, but rose perceptibly from the area, as I stood at the hall door ; and I cannot help attributing this attack coming on, under all the possible circumstances of wealth and station, to the deleterious influence to which I have just alluded.”

Dr. Emerson, in his Medical Statistics of Philadelphia, writes :—

Fever, in some of its forms, is almost universal among the inhabitants of the undrained and unpaved outskirts ; but of rare occurrence in the central parts, which are well paved and drained. By far the greatest proportion of the annual sickness and mortality of an ordinary season is furnished by the narrow and confined alleys and courts, existing in various parts of the town. The difference, though sufficiently obvious in adults, is most lamentably conspicuous among children. Deaths from cholera are rare in houses with large and well aired apartments ; the influence of meagre and unwholesome food and immoderate indulgence in strong liquors, though

usually mentioned as the chief causes of the excessive mortality of the labouring classes, are insignificant, when compared to that of breathing air that has been previously expired, and which, moreover, is commonly charged with animal and vegetable effluvia.

Dr. Arnott's views on Fever, and the conditions by which it is accompanied and produced, are embodied in the following passage:—

Our inquiries give us the conviction that the immediate and chief cause of many of the diseases, which impair the bodily and mental health of the people, and bring a considerable portion prematurely to the grave, is the poison of *atmospheric impurity*, arising from the accumulation, in and round their dwellings, of the decomposing remnants of the substances used for food and in the arts, and of the impurities given out from their own bodies.

Mr. Chadwick affords us some curious comparative tables, shewing the high rate of mortality, which obtains in undrained, as compared with drained, districts.

After such evidence, no doubt can remain as to the urgent necessity of removing all superfluous moisture and putrescent fluid from the soil. What attempt has yet been made to secure this desideratum? Road-sides have been flanked with ditches, not for drainage, but as the consequence of removing earth for the formation and repair of roads. Every here and there they come to a dead stop, from having been built into, or dammed up with a bridge of solid earth-work. Such are the suburban roads—but surely we shall find improvement on inspecting the bazar, the principal street. Yes, good reader, if fortune has placed you in a go-ahead community, you will, on walking down the Regent-street of the locality, find, perchance, every third or fourth shop fronted by a neat square pukka open drain, some six inches in width by four in depth. The next door neighbour has the same, with the simple difference of its being covered in throughout. Next to him is again a proprietor, too poor or too indifferent to incur such an expence, and before whose house the washing of his own and his neighbour's spreads out and stagnates into a miniature pool, checking the water circulation of the street, and spreading upon the road in heavy rain, thus soaking into and destroying its level. Each man builds according to his fancy. We lately paused, during our morning tour of inspection, to admire a new and well made pukka drain: when on viewing it more closely, our first emotion of delight was changed to sanatory consternation, on finding it *built up at both ends!* It thus appears, that the drainage of our Mofussil towns, although a primary element of health, is effected in the roughest and most unscientific way. Continuity is uncared for, levels eschewed, and regular curves repudiated. In such a state of things, stagnation

of water and the collection of decomposing animal and vegetable matter must ensue—with what result, let the authorities, we have quoted, bear witness.

In towns upon the river side, a system of drainage might be instituted with little difficulty: whilst, for those inland, a chain of well kept tanks, placed at short distances, would answer the same purpose.

Every principal road and street should be flanked on either side, by an open semi-circular pukka drain, eight inches, or a foot, in diameter, by six in depth. We say an open drain, because a closed one, such as we often see, becomes a receptacle of filth and dirt. It would be hopeless to attempt “a fall,” in towns situated on the dead level of Bengal: but the same object might be attained through the agency of public sweepers. Even where drains exist, they are built, as we have said, in defiance of regularity and system. This must be altered; and the whole should be arranged by the local authorities in strict conformity with scientific principles.

TANKS.—Bengal is a land of tanks; and every town is an exaggerated epitome of the country. It would be difficult to state the comparative area of land and water in Indian cities; but we shall hardly err in roughly estimating it as averaging twelve to one. This large supply of the pure element has arisen out of the demand natural to a warm climate, which has induced wealthy and philanthropic men to dig receptacles for it. To form a tank, or build a temple, secures, among the natives of Hindústan, a larger amount of respect and admiration than can be secured by any other public work;—and hence their number. It has unfortunately happened, however, that the desire of making a name has preponderated over a more deeply seated love for posterity: and, as the tendency of native society is to pay more homage to a man who makes a tank, than to him who keeps it in order, repair, and cleanliness, we have a constant succession of new ones, whilst those, whose builders are dead, fall into decay, dirt and filthiness. A well formed turf-banked tank, filled with clean pure water, is an object no less pleasing to the eye, than grateful to the body: but an irregular shaped hole, bounded by broken dirty banks and ruined ghats, and covered with a coat of slimy duckweed, is painful to the sight and deeply injurious to health. Which of these conditions prevails in Indian towns, we leave it to Mofussilites to tell. Our own experience dwells upon an array of green stagnant pools, out of which the neighbouring residents bathe and drink, generally forming a little bay of clean water in one corner, by warding off the weed by bamboo barriers. Such is the appearance of

the pure element in the open parts of towns: but if we inspect the tanks in the more secluded portions, we shall find many instances of their being fringed with Privies, which actually project over their surface. In some stations, during the dry season, the level of the water falls, leaving a muddy surface, rich with decomposing matter, thus assuming a similar character to sewers in England. On this subject, we find, from a report of one of the English Registrars to the Health of Towns Commission, that ;—

Typhus is still prevalent, but confined to one or two districts, viz., a row of houses built back to back, the lower floors below the bottom of the adjoining canal, and the north side of castle Foregate, which consists of many lodging houses, situated in close passages and in small squares, having entrances under archways, and frequently having pigsties, and open privies, and heaps of ashes, within a few yards of the doors. The cases of typhus have, nevertheless, generally done well—only three deaths, having occurred in this quarter.

Lynn Regis, East Retford, and Canterbury, furnish subjects for description, in strict keeping with those just adduced.

Within a space of 100 yards square, and constituting the following places, Chapel-lane, North-end and yard, North Street, St. Ann's Street and fort, with a yard there, the disproportionate number of fifty-seven of the whole number of 187 deaths from small pox occurred. Nine deaths out of sixteen in the whole district, happened from convulsions, in four of the places named, and occupying a space scarcely half the size of that referred to. So in proportion to the whole number of 187 deaths in the district, no fewer than nine occurred in the limits alluded to from small pox.

New Conduit street and South Clough-lane are on either side contiguous to the fleet running by Purfleet-street; and here the greatest number of deaths from small pox occurred. As with the streets, so with the yards;—nineteen deaths, out of fifty, from small pox taking place within them.

A large open common sewer existed at the end of Sutton's-row, which was most offensive: and it was predicted by the medical gentlemen of the town, should this fearful scourge (cholera) visit Retford, that this ill-drained, ill-ventilated, and densely populated place, would prove its advent. At length the fearful reality appeared. On the 19th of July 1831, a labourer, residing in this locality, was attacked and died.

During its five or six weeks' continuance in the town, there were fifty cases reported, of which thirteen died and thirty-eight recovered. *With one or two exceptions, the malady was altogether confined to Sutton's-row.*

We have mentioned that, at certain seasons, the falling of water leaves a surface of decomposing mud exposed. What says the Report of the General Board of Health on this head?

While epidemic cholera was prevailing in the town of Cardiff, in the month of June, 1849, a sudden attack of the disease took place in a cluster of houses, about a mile and a half from the town, situated near a canal, from which the water had been drawn off, leaving a large surface of black putrescent mud, to the direct action of a hot sun; and the result was, that very offensive effluvia were immediately perceptible. The smell was complained of by the inhabitants of all the adjoining houses, and produced a

variety of symptoms, varying in intensity in different individuals. There were, in this spot, twenty-two houses, three of which were vacant, and the total population was 117 souls. Out of the nineteen inhabited houses, fifteen were affected, so that only four escaped. There were, in all, forty-eight cases of diarrhoea, thirty-three of developed cholera, and thirteen deaths; so that nearly one third of the inhabitants were attacked with cholera. The works of the canal were finished as expeditiously as possible, and the water admitted. Persons on the spot stated, that the air felt purer immediately; and the disease was arrested.

Dr. Milroy has called attention to the effect of foul canals and ditches in the neighbourhood of London, in predisposing to severe attacks of cholera.

I have reason to believe, (he says) that the severity of the disease in some localities in the metropolis, was attributable to their proximity to canals and basins, in which the water was nearly stagnant, except when it was stirred by the passing of barges. One of the most striking instances, of this source of insalubrity, which came under my notice, was, what occurred in the neighbourhood of the Cumberland basin of the Regent's canal, situated about midway between the Hampstead road and the Regent's-park. During the prevalence of the Epidemic, there was a great amount of cholera in all the adjoining streets—a much greater than might have been expected, when we consider that the locality is generally regarded as salubrious, being open, rather elevated, and by no means densely peopled. The street, which suffered most severely, is Edward-street, on the west side of the basin. Only one side of the street is entirely occupied with houses, the other being but partially so. In some of these houses, as many as four, and even six fatal cases occurred, besides a very general prevalence of diarrhoea among the residents. Mr. Johnson, the parochial surgeon of this district of St. Pancras, informed me, that within a space of 200 feet in length, twenty fatal cases of cholera occurred. Augustus-street, on the other or east side of the basin, also suffered, although much less severely; and two (if not more) fatal cases occurred on the north side of Cumberland Market, the rears of the houses there being open to the canal. I find, also, that there was a great deal of choleraic disease among the men who were employed in the barges, and that most of the families living in the houses on the wharves, were more or less affected, in some cases, with great severity, and in one instance fatally. One woman informed me, that she and her family were ailing chiefly from bowel complaints, during nearly the whole season. Her house is clean and well drained; and the only reason she could imagine for the constantly recurring illness of herself and children was the unpleasant smell from the canal. From all accounts it appears, that the water was in a most offensive state, and, indeed, no better than that of a stagnant putrid ditch. Its surface was entirely covered with duck weed, so that it looked more like a meadow, than the basin of a canal; and when anything was thrown into it, streams of foetid gas came bubbling up. Mr. Johnson assured me that he has known the men obliged to leave their barges, in consequence of the foul smell, when the water was disturbed. So putrid had it become, that not a fish was to be seen in the basin, although it formerly teemed with them. When drawn, it was observed to contain myriads of insects and animalculæ, and the men were unwilling to use it even for boiling potatoes, especially, as it was dark coloured and also offensive in smell at the same time. I have conversed with several medical gentlemen in the neighbourhood, and find that they had long regarded the state of the canal as injurious to the health of the residents near it; moreover, they all agreed in believing that the effluvia from it, tended

very much to increase and aggravate the Epidemic of last season. So strongly convinced was Mr. Johnson of this, that he made a forcible representation to the parochial authorities of St. Pancras on the subject—and with the good effect of having the Directors of the Canal Company summoned before a magistrate, for the purpose of compelling them to have the basin cleaned out. This was agreed to be done; but it was judiciously postponed, until the Epidemic had ceased, and the weather had become cool. The quantity of mud removed was enormous, amounting to between two and three thousand tons; and there is reason to believe, that nearly as much was left behind, in consequence of the inefficient manner in which the process was conducted. It was black and fœtid, like that from an obstructed sewer. No one will wonder at this, when he learns that the basin had not been cleaned out for 25 or 30 years, and that the water had never been renewed during the whole of that period, while every year it was becoming more and more offensive from the pollutions that were thrown into it. All the people engaged on the basin admit, that a great improvement has been effected by what has been done; they are now no longer annoyed with any disgusting smell from it, although the re-appearance of duck weed on its surface pretty clearly shows how stagnant the water must be. Swarms of small fish have returned to it. .

I find that complaints have been made of the exhalations from the canal, at a considerable distance from the basin near Cumberland market; but without detailing any particulars at present, I shall merely mention that a good many severe cases of cholera occurred last year, in James' street and Grove-street, Camden town; and that, in Mr. Johnson's opinion, the effluvia from two or three small docks, where the water of the canal is usually stagnant and more or less offensive, which are in the immediate vicinity of the streets in question, were not without a most pernicious effect upon the health of the residents.

The exhalations from the muddy banks or bottoms of ditches and canals were observed, in many parts of the country, to promote the development of cholera. I saw a striking instance of this at Oxford. In a house recently built, clean, and standing by itself, six persons were attacked, and four died of the disease. There did not appear to be any cause of insalubrity within the house; but it stood upon the very edge of a lengthened ditch or canal, which communicated with the river, but was generally left nearly dry, during the summer months, and then exhaled an unpleasant smell. It is quite a spot where we should expect to meet with ague-ish disease.

Surely this is conclusive; but, were more required, we might cite our own painful experience to the fact of the injurious exhalations arising from stagnant water and putrescent weed, by stating, that a family of three heretofore most healthy children, well-known to and constantly seen by ourselves, having been condemned by the paucity of houses to dwell in one flanking such a tank, as we have above described, were simultaneously attacked early in the last hot season, one with Cough, the other two with Fever, in the same night; and, up to the present moment, have been labouring under a succession of Dysentery, Diarrhœa and Fever, all of which stopped like magic, on temporary removal to a well situated house, and again made their appearance on return to the seat of evil. This rare exposure of

European children to concentrated malarious influence is, be it remembered, the daily and hourly fate of thousands of our native fellow subjects, living in Indian towns. Who shall wonder that Dysentery, Cholera and Fever decimate the population? In some towns, as we have said, the water of tanks is polluted by neighbouring privies. What evil is likely to follow, we cite the Board of Health to prove.

At Hamburg, (says Mr. Grainger,) in those streets, which immediately face the spot, where the numerous canals, that have traversed the city, and have become loaded with the excreta of 175,000 people, concentrate to pour their foul contents into the Elbe, the cholera raged so violently, as to destroy 3.01 per cent of the inhabitants: while residents near the other and purer parts of the river suffered much less. The street in Berlin, distinguished above all others for its excessive mortality, occupies on the map of that city precisely the same spot as the above locality at Hamburg—being in fact, placed just where the numerous branches of the Spree, which go off from the river at its entrance into the city, again re-enter it like a huge Fleet ditch, after being loaded, as was pointed out to me, with all the filth from the drains and *debris* of the houses. In the small town of Chesham, where a severe out-break of cholera took place in 1848, I found that the focus of the disease was a place called Waterside, situated below the town, and close to the little river Chess, which, entering the place as a sparkling stream, becomes subsequently poisoned by the putrid matters from tanner's yards, slaughter houses, and cess pools.

But these stagnant weedy pools must, in many cases, when low, possess the characteristic proprieties of marsh water; in regard to the danger of imbibing which, again hear the Board of Health:—

Observations of the analogous influence of polluted water in producing fever, have been made in other countries. Dr Boudin, a French writer on medical geography, relates a marked example of marsh water exciting fever.

In July, 1834, 800 soldiers, all in good health, embarked on the same day, in three transports at Boua, and arrived together at Marseilles; they were exposed to the same atmospheric influences, and were, with one essential difference, supplied with the same food, and subjected to the same discipline. On board one of the vessels were 120 soldiers, of these, thirteen died on the passage from a destructive fever, and ninety-eight more were taken to the military hospital of the Lazaretto, at Marseilles, presenting all the pathological characters proper to marshy localities; so that “by the side of a simple intermittent, was seen a pernicious fever. Here was a type, recalling the yellow fever of the Antilles; and there was the cholera of the Ganges, with its most terrible traits.” On an inquiry being instituted, it was ascertained, that on board the affected ship, the water supplied for the soldiers, owing to the haste of the embarkation, had been taken from a marshy place near Bona, whilst the crew, not one of whom was attacked, were provided with wholesome water. It further appeared, that the nine soldiers, who escaped, had purchased water of the crew, and had consequently not drunk the marshy water. Not a single soldier or sailor of the other two transports, who were supplied with pure water, suffered.

Dr. Evans, of Bedford, relates an equally definite instance:—

A few years ago, he was staying at Versailles with his lady, when they both became affected with ague, and, on enquiry, the following facts were disclosed.—The town of Versailles is supplied with water for domestic purposes from the Seine at Marli. At the time in question, a large tank, supplying one particular quarter, was damaged; and the mayor, without consulting the medical authorities, provided a supply of water, consisting of the surface drainage of the surrounding country, which is of a marshy character. The regular inhabitants would not use this polluted water, but Dr. and Mrs. Evans, who were at an hotel, drank of it unwillingly, and it was also used by a regiment of cavalry. The result was, that those, who drank the water, suffered from intermittent fever of so severe a type, that seven or eight of the soldiers, fine young men, died on one day, September 1, 1845. On a careful investigation, it was ascertained, that those only of the troops, who had drunk the marsh water, were attacked—all the others, though breathing the same atmosphere, having escaped, as did also the towns people.

From these extracts, the result of the most extensive inquiry by some of the most intelligent men in England, it would appear, that Intermittent Fever, Diarrhœa, Dysentery and Cholera, are clearly traceable, not only to the imbibition, but to the exhalations arising from stagnant polluted water.

How is the remedy to be found?

In maintaining a perfect cleanliness of the water surface, preserving the banks from irregularity and dirt by turfing them, and making a good pukka or grass ghaut on each of the four sides, varying from twelve to sixteen feet in width, and by removing the Privies. Tanks, as we have said, are powerful for good or evil! If clean, well kept, and full of pure water, they cool the surrounding air and form a rarely failing source of life's most urgent necessity to the neighbouring population. If dirty, polluted by excreta, covered with weed, and thus permitted to become a receptacle for all the neighbouring filths, they constitute a focus of disease. The most practical mode of repairing the evil, is to consider every dirty tank "a local nuisance," and insist upon its being kept clean by the owner, under penalty of the law, which has clearly provided the means of dealing with such offences. Another, but, perhaps, less desirable plan, would be, to deem the formation of a tank as strictly an act bearing upon the public health, and, with this view, permitting it only, on the condition of its being endowed with sufficient funds to keep it in repair. Such a regulation might, perhaps, act injuriously by diminishing the water supply to the people: but it would be the most effectual method of putting a stop to the evil of which we complain, until magistrates are uniformly agreed, as to the definition of a "local Nuisance" and prepared to punish its perpetrators.

NECESSARIES.—The filthy habits of the denizens of Indian towns arise more, we believe, from the want of means of cleanli-

ness, than any inherent partiality for dirt. It is, however, sufficient for our purpose, to call attention to the fact, so painfully patent to all residents in this country, that defilement abounds in every direction. It has been often urged, with an apparent shew of truth, that a European in the tropics forgets the use of his legs from failing to employ them; but if those, who taunt us with this failing, could experience but for one day the disgust and misery of seeking to inhale the morning air on foot, whilst every breath comes laden with pollution, they would quickly retract their words. Not content with rendering the earth impure, instances are very common, where water, intended for the use of people distant from any other supply, is rendered poisonous by overhanging Necessaries. The Board of Health writes thus of the injuries, likely to accrue, in consequence of such pollution:—

During the late Epidemic, much additional evidence has been elicited, proving the influence of the use of impure water, in predisposing to the disease. There has been scarcely a town in the kingdom, in which cholera has been prevalent, that has not afforded some instance of it; and, when the water has been contaminated by the contents of sewers or privies, or by the drainage of grave yards, the seizures have been more sudden and violent, and the proportion of deaths to attacks greater even than from over crowding * * * * * Five houses in Windmill-Square, Shore-ditch, occupied by twenty-two inhabitants, were supplied with water from a well, into which surface-refuse and the contents of cess-pools percolated. Of the inhabitants of these houses, eleven, that is one-half of the whole number, died of cholera within a few days.

The first out break of cholera in Rotherhithe, occurred in sixteen houses, which were supplied with water from a well, that was expressly ascertained to be contaminated by infiltration from a foul open ditch. In these sixteen houses, there were twenty cases of cholera; and several of the persons, who died, were decent mechanics, and not in destitute circumstances. The water, which supplied twenty-five houses in another street, was taken out of a ditch, that received the contents of privies. In these twenty five houses there occurred fifteen deaths from cholera.

But the pollution of the surface of the earth is scarcely less injurious. The evidence afforded by the Board of Health, on this point is again very strong:—

When an atmosphere, contaminated by the emanations that arise from filth, accumulated in and about dwellings, is respired, the noxious matters dissolved or suspended in the air are carried directly into the blood. The extent, to which such matters may poison the blood, may be understood when it is considered, that, in the space of every twenty-four hours, an adult person breathes thirty-six hogsheads of air; that there pass, at the same time, through the lungs, to be brought into contact with this bulk of air, twenty-four hogsheads of blood; and that the velocity of the circulation is so great, that the whole mass of the blood is carried round the body in one minute. * * * * * It is, therefore, still not unnecessary to call attention to the evidence, which recent experience has afforded, with reference to this subject.

Immediately opposite Christ church work-house, Spitalfields, belonging to the White Chapel Union, and only separated from it by a narrow lane, a few feet wide, there was, in 1848, a manufactory of artificial manure, in which bullocks, blood and night soil were desiccated by dry heat in a kiln, or sometimes by mere exposure of the compost to the action of the sun and air, causing a most powerful stench. The work house contained about 400 children, and a few adult paupers. Whenever the works were actively carried on, particularly when the wind blew in the direction of the house, there were produced numerous cases of fever, of an intractable and typhoid form; a tendency to measles, small pox, and other infantile diseases; and for some time, a most unmanageable and fatal form of apthæ of the mouth, ending in gangrene. From this cause, above twelve deaths took place among the infants in one quarter. In the month of December, 1848, when cholera had already occurred in the White Chapel Union, sixty of the children in the work house were suddenly seized with violent diarrhœa, early in the morning. The proprietor was compelled to close his establishment, and the children returned to their ordinary health. Five months afterwards, the works were recommenced; in a day or two, subsequently, the wind blowing from the manufactory, a most powerful stench pervaded the work house; in the night following, forty-five of the boys, whose dormitories directly face the manufactory, were again suddenly seized with severe diarrhœa; whilst the girls, whose dormitories were in a more distant part, and faced in another direction, escaped. The manufactory having been again suppressed, there has been no return of diarrhœa up to the present time.

Again, in the Reports of the Health of Towns Commission, we read as follows:—

The medical officer of St. Saviour's Union, in answer to the question, "What is the state of the sewers for the houses of the poorest classes of the population in your district?" says, "They are in a dreadful condition. On one side of Broadwall, at the back of the houses, there is an open sewer into which the privies empty themselves. There is a second open sewer, situate between Hatfield-street and Brunswick-street, which extends its course from Brunswick-place; and there is a third open sewer in Boundary-row, all places thickly inhabited. These sewers are the receptacles of all kind of refuse, such as putrid fish (thrown in by the coster-mongers living about the New-Cut), dead dogs, cats, vegetables, &c. These two latter sewers also receive the soil from the privies of the houses situate near them. All the sewers are always offensive, but disgustingly so at particular seasons." These sewers are only emptied once or twice a year. In answer to the question, What is the general state of the health of the people exposed to the effluvia from the open sewer? the same gentleman states, that "low and malignant fevers are much more frequent and fatal in their effects in these localities, than in the other low neighbourhoods better situated. It is not uncommon to have two or three consecutive cases of fever in the same house; and, year after year, the father or mother of large families is carried off by the frequent occurrence of the disease." Malignant cholera commenced, in this locality, and spread to a much greater extent, on the line of these sewers, than in the other poor, and densely inhabited places. "In Brunswick place where the disease first began, five fatal cases occurred in one house (here the open sewer runs within two yards of the houses); and in many instances, in the direction of the ditches, in a better class of houses, two or three cases terminated fatally from malignant cholera, in the same dwelling. There are

other diseases produced by the malaria emitted from the decomposed refuse in these open sewers." Mr. Clarke the medical officer of St. Olave's Union, says, that the residences of the poorer classes in his district are filthy in the extreme. The chief drainage of the district, inhabited by the poorer classes, is by uncovered sewers, which are a sort of ditches, very sluggish, and emitting constantly most offensive odours. The line of houses, where fever prevails at some periods, often marks the line of defective drainage and open sewers.

Of all reforms this clearing away of Privies must be the first. Without it, every attempt at tank cleansing will necessarily be imperfect. The only fair and practical mode of remedying the evil is by the formation of cess-pools throughout every town. Each should be about twelve feet in diameter, by twenty or thirty in depth, edged with brickwork, crossed by iron bars, divided into halves by a central planking, and surrounded by a hedge. Such a convenience, separately accommodating the sexes by its two compartments, should be formed in the centre of every town Muhulla, and bricked up when full, at which time, another might be opened. The town sweepers, already indicated as employed upon the drains, should visit them twice a day, for the purpose of throwing in a sufficient quantity of chloridizing liquid. Such places of resort are, of course, intended for the poor; but they would also serve the purpose of the better class by forming convenient receptacles for house cleansing. Once instituted, all defilement, of course, would become penal. That such an arrangement would meet with the hearty concurrence of the native community, we have amply tested by inquiry, and, indeed, could point to one town, where it is already in progress.

HOLES AND IRREGULARITIES OF SURFACE, chiefly caused by deporting earth for bricks, and houses, abound in Indian towns. Every dwelling is raised one or two feet above the surface, at the expense of the neighbouring soil, which is excavated in the same proportion. The surface of a town becomes thus full of irregular holes, averaging from one to twenty feet in depth, and presenting universally a rugged outline. In close contiguity to houses, they become the repositories of the dirt, and filth of every kind, and constitute, in the rainy season, a kind of marsh, fruitful of Fever and its cognate diseases. In places of old date, they possess the prescriptive right of ages; but it is lamentable to see the same error perpetrated in new cantonments, raised under European orders, by which the soldier's life and health is sacrificed. The following extracts from our daily Journals offer painful proof of this:—

THE SICKNESS AT LAHORE.—We alluded in our last to the mortality in H. M. 96th Foot, as having been considerable during the present week. We regret much to learn that eleven men have been committed to the

grave since Saturday last. We learn also that 238 patients have been admitted into the regimental hospital during the same period, and that 152 only have been discharged. There were yesterday 244 on the sick list, being a slight improvement on the return three days before, when the number of patients under medical treatment was 286. If our readers will take the trouble to look over the table we published on Wednesday last, they will find that of the European Foot Artillery, also quartered in Anarkullee, and next to H. M. 96th Foot, there were 17 per cent in hospital on the 22nd of August. The number has, we believe, not materially increased during the last few days. In the Royal Regiment, the average has risen to upwards of 30 per cent.; and it becomes a matter of serious consideration to discover the cause or causes of such a material difference. Some of them are, no doubt, local—there being, in the immediate neighbourhood of the Infantry lines, still large patches of broken ground that must engender malaria under the present state of the atmosphere. The Sanatory Committee, appointed during the past year, recommended the filling up of two main receptacles of filth and putrid water, that poisoned the atmosphere around them; and the Governor General sanctioned the estimated outlay with most commendable promptitude, putting to shame the notorious delays of the Military Board in similar cases. But the estimate in one instance, made by an officiating executive, fell short of the required expenditure; and much that should have been done was left undone. There is, besides this, ample room for the untiring labours of the Committee.

Of the sickness amongst the native population of the town we have no authentic information. The mortality is certainly increasing; and the Hakims are so much in requisition, that they can no longer pay domiciliary visits, but compel most of their patients to visit them. The sickness prevails to a much greater degree outside of the town, in the suburbs and habitations to the south and east, than in those to the north: the cause of which may be traceable to the immense tracts of broken ground, that exist and will continue to exist, until some comprehensive measure is adopted for levelling the whole, and ultimately draining those parts where drainage is necessary. A plan for drawing off the waters, that accumulate in the hollows at some distance south and south-east of Lahore, has been matured by Col. Napier, and will, we hope, be carried out as a commencement of one general plan for improving the sanatory condition of Lahore, and relieving the station from the imputation it now bears, of being, during the months of August, September, and October, "very unhealthy." Let every feasible means for removing this state of things be adopted;—let the town ditch, especially, be cleared out;—and the Government will have the satisfaction of knowing, that they have done all that can be done, even if unsuccessful, towards improving the condition of a considerable section of the population of their newly acquired territories—*Lahore Chronicle*, August 30, 1851.

PESHAWUR. *August 7th*—We regret to learn that sickness and mortality still prevail at this station. The 98th Highlanders is represented as a mere skeleton of a regiment, the body being consigned to the Peshawur dust, and 114 of the survivors now in hospital, dangerously ill. The 61st (Queen's) has nearly as large a proportion on the sick list, and both corps are anxiously looking forward to their relief. Much of the unhealthiness of the place is attributed to the wretched barracks assigned to the European troops, which shelter them from neither sun nor rain. After an average shower, several of the barracks appear like islands in a lake, and so remain, until the waters have evaporated or been absorbed. It is true that new barracks are in the course of erection—but, at the present rate of

progression, they are not likely to benefit the existing generation. The water collects in the numerous hollows or pits, from which clay has been dug to make bricks; and thence a deadly miasma arises and poisons the air for miles around. If the Government have any real regard for the health and comfort of the troops, any care for their efficiency, or any sympathy with their sufferings,—this will not be permitted to continue much longer; or, otherwise, Peshawur will become the grave yard of the North-West—*Delhi Gazette*, August 16, 1851.

FEVER AND CHOLERA.—We regret to hear that Lahore is suffering severely from sickness. The city numbers thousands, who are prostrated by fever; and the cholera also is carrying on its dire work—forty to fifty are being conveyed out daily, victims to these two maladies. While at Anarkullee also, in cantonments, as well as in the parts inhabited by the European population, fever is raging, hospitals are filling rapidly, and efforts are being made by the military authorities for the speedy removal of the artillery and other European troops to the purer and more healthy air of Mean Mir. We are informed, this insalubrity, which last year cost us the valuable lives of so many of the Fusiliers and other European soldiers, is owing entirely to bad drainage! Where a heavy shower of rain falls, the parade ground, the Sudder bazar, and several other considerable parts of the station, become so many marshes, which, on being dried by the heat of the sun, exhale noxious vapours, and become so many hot-beds of disease and death. Wuzirabad, Peshawur, and other of our Punjab stations, are suffering from the same cause—bad drainage. This is the penny-wise-and-pound-foolish system of our Government. The lives of the numerous soldiers yearly sacrificed, taken only on a L s d. calculation, are surely deserving the outlay of a few lakhs of revenue in the proper and immediate drainage of the stations. And the Board of Administration should not longer delay in carrying out such sanitary measures as will effectually prevent, in future years, the sickness and mortality, which has visited our European troops during the present and the last twelve months—*Ibid*.

We have received several letters from correspondents at Barrackpore, drawing our attention to the state of that station and cantonments. The writers inform us, that they are in the most disgraceful condition; the roads bad, the drains worse; the ditches and water courses choked up with jungle, and the compounds of all the unoccupied, and of some of the tenanted, bungalows, covered with forests of the same kind. We are assured that the station now looks more like one that had been abandoned on account of unhealthiness, and delivered over to the jackals, than the head quarters of a Division. All the weeds and jungle, that are now having it their own way, must be eventually cut down, and left to decay and infect the air: and then come fevers, heavy sick lists and full hospitals, and possibly deaths and such other pleasing results. Those who have the charge of the Barrackpore Conservancy arrangements, would do well to remember that officers don't always die of fevers, dysentery and other tropical diseases, which are the result of malaria and a neglect of cleanliness, but sometimes escape with their lives, and get into great expense and debt by travelling to endeavour to recover their health and strength.—*Morning Chronicle*.

In towns already built, the evil, thus so powerfully depicted, is most difficult of cure; but the public authorities are bound to make the attempt in restoring the level by earth brought from a distance. Its future practice should be strenuously interdicted, and house-builders compelled to raise the dwellings, either on a brick foundation, or on imported earth.

To secure cleanliness, and avoid the heaps of broken pots, which constitute an attractive nucleus for dirt of all kinds, it should be made imperative on every house, to have a dust-bin, or clay vessel, which might be emptied weekly into the public cart or carts, to be appointed for the purpose of daily perambulating the town. Such refuse might be conveniently disposed of, in a pit formed in the vicinity of the town for the purpose of supplying earth, and a daily compensation for loss would thus be effected.

BURIALS.—Nothing can more powerfully illustrate the silence or non-existence of public opinion in India, than the fact that, whilst the subject of intra-mural interment has afforded full scope for the energies of European sanatory reformers, and given ample employ to legislative activity, it has not even been treated of amongst us. And yet the evil, if possible, exists to a more grave extent.

Are our readers aware, that Mussulman burials invariably take place in the close neighbourhood of the deceased's dwelling—frequently, indeed, within its boundaries? Every Indian town is thus converted into one huge grave-yard, in which the injurious results are not confined to certain spots alone, as in the London abominations, but spread over the whole city. But the evil is not limited to this. The depth of interment ranges between six inches and two feet: the body is simply placed in the earth, excepting in the case of wealthy men; and, in many instances, the jackals exhume it before the expiration of twelve hours, thus facilitating decomposition with all its attendant evil consequences, and familiarizing the public eye with sights, which tend to blunt its moral sensibility, and constitute, we firmly believe, one of the causes of that recklessness of life so characteristic of Bengal.

After the mass of evidence, parliamentary and otherwise, which England has produced; positively demonstrating the injurious influences exercised upon the living by emanations from the dead, but little necessity exists for dwelling on it here. Out of the long list of sanatory evils this is acknowledged to be the greatest: and yet our Indian towns sicken under its sway, without an attempt at amendment. The following most recent illustrations of the injurious consequences of such a custom may strengthen the impression on the reader's mind.

Speaking of grave-yards, the report of the Board of Health

After the evidence, which we have elsewhere adduced, of the injurious effects of graveyards, on the crowded populations in their immediate neighbourhood, we shall cite the two following occurrences, in further illustration of the fact, derived from recent experience.

At Bristol, at a place called the Backbay, there is a burial ground, about eighty feet in length and between forty and fifty in breadth, the surface of the earth of which is four and a half feet above the level of the pavement in the adjoining courts. It is completely surrounded by houses, thirty-three in number. Under the external walls of the burial ground, there are drains with open gully grates, from which, at the time the medical inspector examined them, issued the most offensive odour, having the unmistakable graveyard smell. Out of those thirty-three houses, one of them being empty, cholera broke out in fifteen, chiefly in those on the side next the burial ground. In one house there occurred no fewer than eleven cases, and in several from five to six;—in all forty-seven cases and thirty-three deaths.

"There were no local sanatory defects," (says Dr. Sutherland), "which tended to make this place more liable to an Epidemic outbreak than other districts in the same neighbourhood, except the presence of the burial ground, and the polluted state of the drainage to which it appears to have materially contributed. "It is known," (says Mr. Grainger,) "that a most distinguished surgeon, Mr. Key, whose valuable life fell a sacrifice to the late Epidemic, resided in a house, the back windows of which looked directly into a graveyard; that he was much in the habit of sitting at these windows when opened; that he had complained to his servants several times, shortly before his attack, of the offensive smell proceeding from the burial ground, in which some cholera corpses had been entered; and that, on the very day of the fatal seizure, a grave had been dug, which attracted his attention, as having increased the noxious effluvia.

To this we must add the very remarkable statement in an article on Plague, from the *British and Foreign Medical Review*, July 1847, shewing the disease to have been unknown in an Epidemic form before the practice of embalming gave way to sepulture.

The question is of extreme interest, why Egypt, described by Herodotus, as the most healthy country of the world, a country which was free from pestilential Epidemics during 194 years' occupation by the Persians, during 301 years under Alexander and the Ptolemies, and during a great part of the Roman domination, which commenced 30 B. C. and continued until 620 A. D., has, since the commencement of the Arabic rule, been so often decimated by the plague. The statement of Rufus, before alluded to, although proving that the disease was known, also proves that it was nothing more than a sporadic disease in his time; and a casual allusion only of Galen, who was of the school of Alexandria, would prove the same, at a like period. The Committee state that Alexandria, which was founded 331 B. C., was, according to Galen, attacked by plague for the first time as a pestilence A. D. 263. But they have made a strange mistake in Chronology, for Galen was born 131 A. D., and, if he spoke of the plague of 263, he must have written when he was 132 years of age. The fact is, it is Eusebius, an author by no means noted for accuracy, who describes the epidemic of 263; and the disease, he describes, appears to have been simply a contagious typhus. Galen, as we have said, only incidentally alludes to plague, while Celsus, Praxagoras, Serapion, Saranus, and above all, Cælius Aurelianus, who lived in the fifth century, and practised in Numidia, have been quite silent with regard to any Epidemic disease, accompanied by buboes or carbuncles. It must therefore have been a rare disease, until the great plague of 542, in the time of Justinian, broke out, which we know was regarded by contemporary writers as a new disease.

The ancient salubrity of Egypt must, doubtless, be ascribed in a great degree to the general prosperity of the people, the canals of Sesostriis, and the elevation of the towns upon artificial mounds; but we believe, above all, to the practice of embalmment. Ancient Egypt, the mother of the sciences, had recognised the effect of the periodical fertilizing inundations of the Nile, and of the burning heat of the sun upon the deposit left on the subsidence of the waters of the river, over spots where men or animals were buried. What was the result? Inhumation was forbidden, embalmment enjoined; and now, instead of tombs and cemeteries, the traveller observes along the ranges of hills, which border the Nile, immense subterranean cavities, miles in extent, which are filled with embalmed organic remains. The living were thus protected from the dead: and to ensure the observation of the laws, religious influence was called in to the support of human wisdom. The law became a religious rite; the influence of the divinity was employed to protect Egypt from the evils of her physical formation. The salubrity of the country ceased with the practice of embalmment. The Christian Missionaries proscribed the ancient usages as idolatrous and sinful; and this mode of sepulture gradually fell into disuse, and was finally prohibited and abolished, 856 A. D. We have seen that the plague, though before not unknown, was a rare disease; but, in 542, sprung up the terrible plague, which devastated Egypt, Turkey, and Europe, to the borders of the Atlantic, and, according to Gibbon, destroyed a hundred millions of people.

In our former article we gave our reasons for believing that the emanations from the dead bodies, buried in lower Egypt, are the real cause of the persistence of the disease in that country; that the disease is sown and preserved by the mode of the sepulture; that the living are poisoned by the emanations of the dead. A porous level soil, filled with dead bodies, penetrated universally by moisture during the overflowing of the Nile, is, after the subsidence of the waters, heated by a burning sun, and a vast cemetery, in the language of M. Pariset, is converted into a "true distillery of dead bodies.

Where is the remedy for this state of things to be found? In the formation by Government, from the public funds, of a Mussulman cemetery in the vicinity of every town, to be maintained in a state of decency and cleanliness, and in which alone burials shall be permitted. We are not unaware of the opposition, which may be expected to attend this measure, especially on the part of the ignorant and bigotted of the faith of Islam; but we assert that such difficulty must be met by law and decision. Such a practice was common in the old Mussulman cities of Delhi and Agra, where the passing traveller will find himself surrounded at certain points by tombs congregated together; and it now prevails in Calcutta. We have lately discussed the subject with many Mussulman gentlemen of intelligence, who all concur in stating, that no objection can possibly exist, as far as the Koran is concerned. Indeed, one has spontaneously offered a piece of land for the purpose, accompanied by the following extract from a "commentary on the Koran." By this it would appear that not only is a cemetery perfectly unobjectionable, but that burial near roads and bazars is absolutely forbidden: and that the Mussulmans of our Mofussil towns

are thus daily transgressing the ceremonial form of their Holy Book.

The extract adverted to was forwarded to us in the following letter from one of the most intelligent native gentlemen in Bengal :—

You requested verbally, my opinion, a few days ago, on the propriety and practicability of erecting public cemeteries here for burying the dead of the Mussulmans. That they will be a great boon and tend in no inconsiderable measure to promote the healthiness of this town, can scarcely admit of a moment's question. The present practice, of burying the dead in the compounds of houses and in the heart of large and populous towns, is very reprehensible, and is the cause of much of the sickness which prevails there. Its discontinuance ought therefore to be considered as one of the first and most important sanatory improvements that can be effected in the Mofussil.

I believe the erection of public cemeteries is not opposed to or irreconcilable with the tenets of the Koran. That they have existed in Arabia and Persia, from time immemorial, is evident from the ancient traditions and records of those countries. It is true they are not expressly promulgated in the Koran, but this is not, because they are prohibited by it, but because they had prevailed long before the time of Muhammad, and required no fresh religious sanctions. The Koran prohibits the burial of the dead on the road side, or in the vicinity of bazars, &c, and it may fairly be inferred, that if the prohibition had extended to public cemeteries, it would have been distinctly mentioned; I beg to annex an extract from the Ticea, or commentaries on the Koran, which would fully warrant this inference. I beg to add that I have conversed with several Muhammadan gentlemen on this subject, and that they approve generally of the erection of public cemeteries. One of them, Mir Muhammad Ali, has furnished me with the extract alluded to, and would be happy to grant a site for a public cemetery in this town.

The book enjoins that the dead should not be buried in a "bad place;" that no dwelling should be erected over the grave, nor any person should sleep, walk, sit, or satisfy any of the calls of nature over it; that the burying of the dead in a lane or bazar, is improper, and that, if any person is interred in ground, belonging to another, without his permission, the owner has the right of removing the corpse, or levelling the ground and cultivating it.

How the present most vicious custom ever became introduced, it would be idle to speculate; but, if we would seek to confer the blessing of health upon those beneath our sway, it must be immediately abolished. Whilst we are upon the subject of cemeteries, we would draw the attention of our fellow-countrymen, to the painful condition, which too many of our Christian ones exhibit. A small walled enclosure, set thick with tombs, whose pretensions, size and decorations, offer the most painful contrast to the decay and neglect with which they are surrounded, is the too frequent sight which greets the inquiring traveller, fresh from Europe, and still glowing with that holy feeling of respect for the dead, which forms so strong and admirable a characteristic of English communities. Why is this so? Are we more

thoughtless of the past, and anxious for the present, than our fellow-countrymen? We would fain believe that such is not the case, but rather deem that the desolation and apparent forgetfulness we deplore, is owing to the rapid changes of society, which leave none behind, who mourn the dead, and also, perhaps, to a natural disinclination to visit a spot possessed of so few attractions for the eye. All this should be changed! "Local funds might certainly provide a gardener to keep the place in order, and cultivate some few simple flowers, whilst those, who lavish no inconsiderable sums to build a tomb, might assuredly provide sufficient, on their departure, to repair or preserve it from decay.

BURNING GHAT.—Although our Hindu fellow-subjects trouble not the earth in burial, they very seriously pollute the water;—a circumstance of no mean importance, in narrow rivers, which furnish drink for the living.

Our readers need not be informed, that destruction by burning, or, as we may more briefly term it, cremation, is the ceremonial law for disposing of the dead, enunciated by the Shastras; but they are not, perhaps, equally aware, that no other mode of dealing with the corpse is recognized or permitted, except in rare instances. What is the daily custom of the Hindu race? About one-half of those, who die, are strictly treated according to this edict; one-fourth are partially consumed, and their scorched trunks cast into the nearest stream, or tank; whilst the remaining portions are at once thrust into the water, and float downwards to the sea, in a state of horrible decomposition, poisoning the water of narrow streams, or sickening the eye, whilst tumbled in the torrents of the Ganges, becoming entangled amongst the shipping in its waters, or clinging to the banks of the gardens which adorn it. Will our distant readers be startled, if we assure them, that in Garden Reach, the pride and boast of our palatial city, we have actually known servants employed at intervals, throughout the day, in thrusting these decaying vestiges of mortality, from the vicinity of their master's grounds, to float out into the stream, only to be sucked in again by the next turn of the current? These horrible sights have furnished food for written descriptions of the first appearances in India, from the earliest days of British India authorship; but how few have ventured to inquire, as to their necessity and prevention, as far as Calcutta is concerned. Government has taken the first step in Sanatory Reform, in relation to this practice, by enclosing a certain space by the river-side, termed a Burning Ghat, to which all cremation is limited. But sanatory science and public decency claim yet another, which is "full and perfect destruction of every corpse admitted within its gates, thus putting a stop at

once and for ever to the horrible sights we have described. The advantage would not be limited to this, but we might safely calculate upon the system of ghat murders being much checked by its adoption. At present, we have reason to believe, many sufferers from disease, reduced to the last stage of weakness, are brought to the river-side, and, too poor to afford cremation, are thrust into the stream, directly life appears extinct, who might, on the application of fire, have given such unmistakable signs of life, as would have induced their friends to pause before hurrying them into eternity.

Even the inclosed Burning Ghat* is wanting in the Mofussil, where a spot of ground, in close contiguity to the town—often, indeed, almost surrounded by houses—is devoted to the purpose, as chance, or the hereditary Ghat keeper's convenience, may determine. In order, certainly, to determine the feasibility of Government interference, we lately submitted the whole question to a conclave of Pandits, the translation of whose united reply is as follows:—

According to the Hindu Shastras, it is absolutely necessary that the dead of all classes should be burnt. If an accident, or some other cause, renders the burning of any corpse impracticable, the image of a human being should be made with straw, and this should be burnt; or else no ceremonies can be performed for the dead. When a corpse is not burnt, or (in case burning be impracticable) the rite of image burning is not observed, the dead is considered to have been impious.

Exceptions from this law.

1. Infants dying before their teeth are grown up are not to be burnt, but buried.

2. A person infected with leprosy should not be burnt, unless his ablution is performed by his son.

3. One, who dies by accident or suicide, should not be burnt, but his corpse is to be recklessly thrown into the desert, like wood.

4. A person who, renouncing his family, becomes a mendicant, should not be burnt after death; and a religious sect, called Joghis, practice burying according to their principles. Even these partial and infinite similarly small exceptions, need present no difficulty to a Government enactment, whilst Hindus recklessly break through their law. An apt illustration of this has occurred within our own experience, during the past week, in which a Kúlin Brahmin, having committed suicide, was instantly carried to the funeral pile, instead of being thrown into the Jungle, as directed by the Shastras."

Supported by the authority of the Shastras and the universal opinion of all those Hindus, whom we have consulted on the subject, our proposition is, that perfect cremation should be made imperative at burning places set apart near every town;

* We are informed that, from some cause unknown, burning is very little practiced in Murshedabad, a city containing about 1,65,000 souls. During the cold season, when the river flowing by it becomes narrowed to between 1 and 200 yards, bodies may be seen floating about in groups of twenty, or more.

and that where poverty is the obstacle, the expense should be met from the local funds. We are satisfied by personal inspection, that a body may be perfectly consumed by four or five maunds of wood, which will average ten annas in price; four annas might go to the officiating Brahmin, and the remaining two annas to the expence of the establishment, making a total cost of one Rupee per body. If, in a town of 20,000 inhabitants, where Hindus and Mussulmans are in equal number, such a system were in force, our expenditure would be, assuming mortality at five per cent., and one-half of those, who died, too poor to afford fuel, an annual sum of Co.'s Rs. 250; or, taking Calcutta, as an illustration, and basing our calculations upon the Ghat Records, furnished by Dr. Stewart, in his report on Small Pox for 1843, we involve ourselves in an annual outlay of only Co.'s Rs. 2,000, for the abatement of a practice, which strikes with horror every thinking mind, vitiates the air, pollutes the water, leads to a reckless disregard of life, and facilitates Ghat Murders.

We cannot permit this opportunity to pass without recording our deliberately formed opinion, that cremation is the only mode of disposing of the dead, worthy of a civilized nation. We have seen the fearful evil attendant on our crowded grave yards. Happily the better sense of Europe is now forsaking them for suburban cemeteries: but who shall say how long these, at present, admirable resting places for the dead, will remain in rural districts? London is spreading out in every direction, and, within the next fifty years, must embrace them all within her limits. Again, have our readers ever reflected upon the possible number of those who have been consigned to the tomb, before life was extinct? Calculations, sufficiently appalling, have been made. Our personal experience comprehends two instances, when such a fearful fate was only prevented by the merest accident. It seems to us, that *one* such alone should suffice to introduce a mode of decomposition, in which, did the smallest spark of life exist, it must become apparent. Far be it from us, to detract one tittle of that respect, with which Christianity loves to surround its dead. But we would suggest, that cinerary urns, containing the ashes of the dead, might well adorn our present cemeteries.

That the contemplation of such a mode of burial, if we may so term it, is not confined to ourselves, is evidenced by the formation of an association in England, in 1850, "for promoting the practice of decomposing the dead by fire." Such are the amiable prejudices of mankind, jealously guarding the worn out garments of those we loved from all appearance

of suffering, that the idea we promulgate, if destined to take root at all, must do so by very slow degrees. We sincerely trust, however, that a more able and powerful advocacy than our own, will ere long arise, to urge upon the nineteenth century the wisdom and perfect propriety of so disposing of the dead, that no harm shall, by any possibility, accrue to the living. Let a few energetic lovers of their race will such a testamentary disposal of their mortal shell; and we may hope that their moral courage will confer incalculable benefits upon mankind.

DISPENSARIES scarcely enter into the category of Sanatory Reform; but, as no system would be complete without them, they may fairly claim a few words.

In spite of the most perfect application of Hygiène, disease and death must prevail within certain limits. The object of sanatory science is to obviate any excess above this. Two per cent. per annum on the population is the probable minimum, to which, with our present knowledge, we are sanguine of reducing mortality in England. Making every allowance for the tropics, we see no reason, why the mortality of Indian towns, provided Sanatory Reform, such as we have indicated, be carried out in the right spirit, should exceed 3 per cent. The ground on which we base this aspiration is, that in the Bengal army, a portion of which is serving in climates notoriously inimical to the constitution of the men, the ratio of deaths to strength is only 1.79, or, including invaliding, 3.25. Admitting, however, the unavoidable mortality to be reduced to three per cent., we must still provide for the alleviation of the sickness, which accompanies it, as well as that not ending fatally; and this can only be accomplished by disseminating European skill throughout the country, and affording it a fitting field for exercise, by the establishment of dispensaries and hospitals, united in one. Government have done much to meet this want; but, aided by local funds, they are bound to continue the good work, until every town in India, with not less than 5,000 inhabitants, is so provided for.

SERAI.—In close vicinity to all dispensaries, we would gladly see established a Serai, which, if built of a square form, containing, in its interior, accommodation for travellers, and externally, a range of pukka rentable shops, would largely benefit the way-faring public, at a very moderate expense to the local funds. With such a building in existence, we should be spared the painful sight of pilgrims dying from cholera on our roads, or carried by convicts to some hastily prepared receptacle.

Such are the reforms which, we believe, would tend to liberate the millions beneath our sway from the heavy pressure of disease and death, now weighing so heavily upon them. The mortality of Indian towns, as we have seen, is probably more than double what obtains in England; but the proportion of sickness far exceeds this, and is mainly due, we conscientiously believe, to remediable circumstances. Our *extra* tropical readers can form no conception of the occasional almost universality of disease in India. At certain times, especially in the conclusion of the rains, when all the injurious influences, we have endeavoured to depict, come into active operation, families are one and all prostrated:—fathers, mothers, children, servants, all succumbing to the malady of the hour, which is generally Fever of malarious origin. The task of removing such a mass of human suffering is worthy of the mighty Government we serve: and, should our humble efforts but pave the way, even by a single stone, for such a consummation, the remembrance will gild our life with the reflection that we have not lived in vain. If such a feeling be uppermost in the mind, that has, we fear, but imperfectly pointed out the evil and devised the remedy, what a noble task will await that man, who shall be deputed by Government to be the active agent for carrying out its philanthropic intents!

Let us now consider the means at hand, for putting our suggestions into operation for this purpose. Towns may be divided into two classes. 1. Those which have availed themselves of the Act, or Acts, at the head of our article. 2. Those which have not.

We blush to say that so little has the vital importance of Sanatory Reform impressed itself upon the public mind in India, that, throughout the whole length and breadth of our dominion, we doubt, if five cities can be found enjoying the benefit of either enactment. Even when the attempt to introduce it has been made, as at Howrah, ignorance and a sordid and blind preference of money to health in the many have prevailed over the intellectual philanthropy of the few. Act 10 of 1842 provided, that the application of two thirds of the resident householders of any town was necessary to its authorization. Such is the *vis inertiae* of Indian life, that no one stepped forward in any single town, as far as we are aware, excepting Howrah, to urge his fellow citizens to make the necessary application: and the whole piece of legislation thus became inoperative. Had the European officers of Mofussil towns, especially the Magistrate and Civil Surgeon, done their duty, a different fate might have befallen it. However, as we have

before said, it is no easy matter for any man, be he ever so zealous, to stir up two thirds of a householding community to a movement, which shall end in taxation.

Thus foiled in its benevolent intentions, the Supreme Council was again invoked for aid, and Act 26 of 1850 made its appearance, simultaneously repealing Act 10 of 1842, on the ground of its having proved ineffectual.

The new Act provides, in section 2, that, if it shall appear to the local Government, "that the inhabitants of any town, or suburb, not within the towns of Calcutta, Madras or Bombay, are desirous of making better provision for making, repairing, cleansing, or lighting any public streets, roads, drains, or tanks, or for the prevention of nuisances, or for improving the said town or suburb in any other manner, the said Governor, or Governor in Council, or Lieutenant Governor, may order this Act to be put in force within such town or suburb."

The 3rd section provides for a public notification and proclamation of any such application, so that any, who are so inclined, may declare themselves for or against it.

The 6th section provides for the appointment of administrative commissioners, in case of its becoming law, and sanctions the preparation by them of subsidiary rules, especially those relating to taxes, and the definition and prohibition of nuisances. Such is the spirit of the new Act.

The expression "if it shall appear that the inhabitants * * * * are desirous of making," is a vast improvement upon "two thirds of the householders." In the present case we may conclude, that the application of any number of individuals, however small, would suffice to bring the subject forward, and, in the majority of Mofussil towns, the wheel, once set a going by a few energetic Europeans, would not easily be stopped. The great omission of the Act is failing to point out the nature of the offices to be constituted by the Commissioners, contemplated in its 6th Section. The "Towns improvement Act" of England, passed with similar views, expressly notifies a Surveyor, Officer of health, and Inspector of nuisances, as the active agents of its operation. In the smaller towns of India, a surveyor might be dispensed with: but upon the due fulfilment of the other two offices hinges the successful prosecution of the measure. The Civil Surgeon would naturally become the Officer of health: whilst the Inspectorship of nuisances should, in all practicable cases, be entrusted to a respectable non-commissioned officer, who would not only make it his business to be constantly perambulating the town to discover them, but should

personally see to their removal. But where is the golden stream destined to arise, which shall vitalize the whole? The seventh section provides for assessment: the fund, resulting from which, will be at the entire disposal of the Commissioners, merely saddled with the condition of their furnishing Government with an annual account of all works executed, and sums spent and received during the past year. This is as it should be: but what is to become of the present surplus of chowkidari tax, and the 75 per cent. on profits of jail manufactures, both wholly available by regulation, for the work contemplated by the Act? They will, of course, be made over to the municipal commissioners to be amalgamated with their own funds, and dealt with accordingly. We should much like, however, to have seen the appropriation more distinctly recognized.

Such is the latest machinery established by Government to purge this interesting land, in which Providence has cast us for some great ends, of the manifold physical evils which afflict it; but it is a machinery, which will never work, unless it be set a going, and its spring maintained in action, by some master mind. Government may facilitate the reform we advocate; writers may plead its cause; but our experience of Mofussil life assures us, that nothing will be done until an Inspector of health be appointed to traverse the land from east to west and north to south, visiting every city in his route, advising, suggesting, and finally reporting to Government. Without the presence of such an officer (and no common man must be selected) to infuse life, zeal, and sanatory animation into our local authorities, the Act, we have been discussing, will fall lifeless to the ground. But once deputed, and vested with sufficient power, India, we venture to assert, would undergo, within the next decade, a revolution in her physical characteristics, such as, with eyes accustomed to the daily pestilence around us, can be hardly dreamt of. Every department of the state but this, possesses an office, such as we advocate. There is a Surveyor General to map out the country; superintendents of survey to check the loss of revenue; superintendents of Police, to render efficient the machinery for repressing and detecting crime; and Inspectors of prisons to perfect a system of prison discipline; but the public measures demanded by science for the prevention and repression of disease are left to chance. In the formation of such an office, we know of no better plan than that suggested by Mr. Bedford, who would combine such an inspectorship with the locomotive superintendents of vaccination. The report of the Board of Health,

almost entirely based upon the researches of its inspectors, Dr. Sutherland and Mr. Grainger, shows what may be effected by such an arrangement. Whether towns placed themselves under the operation of the Act or otherwise, the officer, we propose, would suggest to the authorities all necessary improvements, and report upon their being carried out. His wide experience of sanatory science, and constant supervision of the country, would enable him momentarily to point out what essential changes were required, and render the adoption of some uniform system, simple and easy. Even where the Act adverted to is not in operation, much might be done by medical officers directing their attention to the changes we have suggested. Magistrates have no leisure for the task. Upon the civil surgeon lies the whole responsibility. He should make himself thoroughly acquainted with the town under his charge; and a certain number of convicts, not less than fifty, ought to be placed under his orders, by the Magistrate, that the delay of correspondence, so fatal to energy, might be avoided. In conjunction with this, the surplus chowkidari tax and profits on jail manufactures, should be entrusted to the Magistrate for immediate expenditure—an annual account of work done and outlay incurred being required from him. The present system, which renders a reference to Government necessary for every separate anna of expenditure for public works, is altogether fatal to their prosecution. Officers, unless animated by energy and enthusiasm, will not sit down, day by day, to correspond for every trifling want. We have lately met with a most remarkable instance of the practical injurious result of the impediment so created, in which a town, reeking with disease and death for want of improvement, was actually found, on inquiry, to be possessed of an untouched, but available, fund of Co.'s Rs. 20,000, which had lain rusting in the Treasury, for some seven or ten years, whilst the town had continued a neglected swamp, and hundreds had perished unnecessarily. The towns of India, as we trust has been shewn, are now hot beds and nurseries of disease. Their roads, with few exceptions, are neglected; their drains, stagnant pools of decomposing filth; their tanks, made for the refreshment and health of man, converted into a polluted source of slow insidious poison; their houses, surrounded by pestilential marshes; whilst the dead lie mingled with the living, and the very streams, that lave their banks, are rotten with the fostering remnants of humanity. What a huge mockery it is to fill these people's mouths with Shakespeare, to bid them study Bacon, to practise on them the refinements of law, and to demand

daily increasing civilization, whilst that health, which is essential to the full perception and enjoyment of all and every one of these goods, is utterly neglected. This must be so no longer ! Government cannot now sit down in meek complacency, and fold its hands in the conviction, that every future step rests with its subjects. The train of Sanatory Reform is not continuous. It requires to be lighted at every fresh point, and its blaze maintained by knowledge and enthusiasm. When this is done, beacons will blaze up from a thousand hills, sufficient to irradiate the land for ever, and cast a reflection on the green shores of Britain, such as will awake our fellow countrymen to the conviction, that we "exiles of the East" have lived for others than ourselves.

ART. VI.—1. *Thirty-Eighth Report of the Calcutta Auxiliary Bible Society. Calcutta. 1851.*

2. *Thirtieth Annual Report of the Madras Auxiliary Bible Society. Madras. 1851.*

INDIA is the largest appendage of a great empire, which the world ever saw. It is not merely a country, but a continent, which, in ancient days, contained numerous kingdoms, independent of one another. Stretching 1,800 miles in extreme length and 1,300 in extreme breadth, it includes within its mighty boundaries all varieties of climate, scenery and soil. The giant range of the Himalaya, capped with eternal snow; the sandy deserts of Rajputana; the fertile plains of the lower Ganges and of Tanjore; the mighty Ghats and the salubrious plateau of Mysore, alike rank among its territories. It contains at least one hundred and thirty millions of people, distributed in twenty-four provinces, and speaking thirteen polished languages. The resources, with which Providence has gifted it, are fitted to promote the comfort of human life in a thousand ways. It supplies the cheapest food of numerous kinds: and the warmth of its largest provinces requires but scanty clothing. It furnishes fields of coal, beds of copper, lead and iron, and mines of salt. It has giant forests of the most useful trees, especially sal, teak, segun and oak; while its bamboo topes, its cocoanuts and palms, furnish the poor with the posts, roofing and thatch of their houses, and with a variety of articles besides. Its dry plains produce in abundance varied kinds of pulse and vegetables, together, with wheat, indigo, cotton, sugar and opium: while, in its vast swamps, are grown luxuriant crops of rice. The noble rivers of Bengal and the N. W. Provinces furnish a ready highway for trade, while the cheapness of labour brings their vast produce into the market at a low rate. Not only in the necessaries of life, but in its luxuries, does the value of this mighty continent appear. It has given to the world its largest jewels and finest fabrics. The shawls of Cashmere, the muslins of Dacca, the filagree jewellery of Cuttack, are to this day unrivalled. The might of European machinery has, in these things, yielded the palm to the taper fingers and ingenious skill of the natives of India: while their carvings in ebony and ivory, their curious musical instruments, their rich embroidery, viewed in connection with other features of their character and occupations, prove them to be a unique and wondrous people. The population has its features of interest, as well as

the country. It includes the clever and cunning Brahmin; the submissive and patient Sudra, the poor outcast Paria of Madras, and the licentious Mussalman. It includes the coward yet cunning Bengali; the spirited Hindustani; the martial Sikh, Rohilla and Gurkha; the fighting Mahratta and Rajput; the mercantile Armenian; the active and honest Parsi; the busy Telugu; and the uncivilized Gonds, Khunds, Bhils, Todawars, Garrows, Lepchas, Kassias, and the like, who now inhabit the hill forests, but who once roamed as lords over the outspread plains. The revenue paid to the Government is equal to twenty millions a year: and the annual trade of the three ports of India amounts to not less than forty millions of pounds sterling.

But its people are not happy. Though the land contains immense resources for the production of wealth, and the population, that must develop them, swarms upon its surface, the motive to industry is wanting. The cultivator is in the hands of a grasping landholder and greedy underlings. Caste divides the nation into sections, setting tribe against tribe, family against family, and one pursuit against another. A tyrannical priesthood lays its grasp upon every source of gain, and exacts fines and fees from every transaction of the Hindu, from the time of his birth till he is burnt on the funeral pyre. A debasing idolatry, which has sanctified by religious worship the most odious vices, and calls the vilest of characters incarnate Gods, rules over millions of votaries. To the *dicta* of their priests and the assertions of their Shastras, they yield implicit obedience; sacrificing to their cruel sway the appeals of conscience, the conclusions of reason, and the evidence of their very senses. Can it then be wondered at, that all the power of this people is grossly mis-used—that their intellect is debased and perverted, or that their moral sense is often all but dead? Is it strange that there should be found among them so little of truth, patriotism, justice, or heart-purity; while covetousness, revenge, licentiousness and lying, are as common as the light of day? The Hindus may be clever, acute and skilful to a certain point, but their moral character as a nation is debased in the extreme.

For what purpose then, we may ask, has this great continent, with its vast resources and countless population, been placed under the rule of a small island in the western world? Why is it that, in the far east, 'regions, Cæsar never knew,' should be governed by the people of that barbarous island, which Cæsar's legions were the first to conquer; and that their steamers should bring within five weeks distance of each other, countries, which

to him were the extremities of the earth? Why is it that this conquest should be effected without great cost to England by the people of India themselves, in spite of Charters, Acts of Parliament, and the voice of public opinion? The hand of God has been in it. Even statesmen and politicians, who never acknowledged a Providence before, have confessed that they see it here. But for what *end* has it thus been given? Not that the pride of England may be flattered by tales of prowess and deeds of arms; not that its armies may reap ‘imperishable glory’ on well-fought fields, or that its generals may be raised, by their victories, to an English peerage: not that India may provide place and pay for the numerous relations and dependents of its governors; not that it may yield three quarters of a million in dividends to East India proprietors, or that it may enlarge the trade of English merchants, give work to English artisans, and bring an annual gain of eight millions sterling to the English nation: not for these and a thousand other earthly objects, has this mighty trust been committed to England’s charge. It is given to her, that the blessings, which have made England great, may elevate degraded India too; that her high civilization may be shared by her dependent; that the knowledge, which has enlightened her intellect, may enlarge the mind of the Hindus; that the mental vigour of the conqueror may be imparted to the conquered; that the justice, the moral tone, the truth of England, may be infused into a people, who have not known them for ages. Above all, that the BIBLE, which has made England and America the missionaries of the world, may destroy India’s idolatries and caste; raise her people from their degradation; purify them from the immoralities, which their religion now teaches; make them just, truthful and happy; raise the female population, give them joys in this life, and animate them with the hope of eternal bliss. It is that Christianity may “raise the poor out of the dust, and ‘lift up the beggar from the dunghill; to set him among ‘princes, and make him inherit the throne of glory.”

In accomplishing this end, all, who come to India, have a work to do. The Government, in all its branches, civil, military and financial, has to show the influence of Christian principles in wise legislation; in the just administration of sound laws; in the faithful protection of the life, the freedom, the conscience and the rights of all its subjects; in justly apportioning the burdens of taxation among all classes of the community; in promoting intercourse between all parts of the country, and in endeavouring to preserve peace. Merchants,

traders, factors of all kinds; officers of Government in all grades; and all Christians, whatever be their station, ought to shew the excellence of their faith in their consistent life, and by taking all proper opportunities of pointing out the errors of false religion, and using efforts to remove them. "Seek ye," said the prophet, "the peace of the city, whither ye are carried captive; for in the peace thereof shall ye have peace." But by far the largest share of the great work of India's renovation belongs to the Church of Christ; and all the agencies, which it can put forth, it is bound to exert to its utmost power. The door is now open for the fulfilment in India of the great commission, which its master has appointed as its duty through all time.

Now that the opportunity of discharging this important duty has existed for many years, the questions naturally arise, how has the trust been fulfilled, or what measures are in progress for its faithful discharge? These questions we propose to take up in the present paper, deeming the close of the half century just past a fit opportunity for reviewing what has been effected, and for enquiring what amount of agency is being employed for carrying out the end designed. We do not now enquire at any length, what the Government has done. We make no search into the character of its legislation, the efficiency of its army, its magistracy, or police; into the state of its roads, its revenue and public debts; neither shall we examine into the character and proceedings of the merchants, the planters, and other classes of English Society, scattered throughout the country.

We fear that, on several points, we should derive little satisfaction from either investigation. There are great leading facts in the history of the Court of Directors, which might well serve to moderate the warmth of their admirers. They opposed the opening of England's trade with India in 1813, and the opening of her trade with China and the free settlement of Europeans in India in 1833. They now derive a vast revenue from supplying opium for the iniquitous traffic, in which men calling themselves Christians seek gain by selling poison to myriads of Chinese. In the battle between Christianity and Hinduism, throwing their sympathies and aid into the scale of idolatry, they imparted fresh vigour to the falling cause, by renewing the temples and beautifying the pagodas; they compelled their officers to take charge of the funds, brought their troops to attend the festivals, and received the fees of pilgrims at the pagan shrines. They opposed the abolition of

Suttee ; they resisted the introduction of missionaries into India, and sanctioned the deportation from its shores of men like Judson and Gordon Hall. They have done little to promote the simple vernacular education of the great mass of the people. They govern the country by means of a small exclusive service, the members of which are, every one, sent out to be provided for life with large incomes, however unserviceable they may prove : and the monopoly of this service, consisting, as it does chiefly, of their own relatives and connections, they preserve, with a jealousy, which every Governor General lives to find, is one of the chief elements of their policy. Of the Europeans in India, generally, we must equally fear, that the truest account would be the most unfavourable. We have heard of some, who regarded themselves as Hindus, rather than as Christians : of others, who deemed Muhammadan festivals fit objects for special patronage ; and of others, who directly counteracted the instructions of missionaries, by advising young men not to become Christians, and teaching them that Deism was the true religion for men. We have heard too of thousands, who lived, as though they regarded gentleness, mercy and spiritual worship, less than the heathen, by whom they were surrounded.

It would be unjust to deny or conceal, that, in recent years, there has been a considerable improvement both in the spirit of the Government and in the example of the European population. In the Madras Presidency especially, there has been a large increase in the number of the Europeans, who fear God and count his service an honour. The days, when a sepoy could be dismissed from the army, simply for becoming a Christian, (a fact in the time of Lord Hastings) have, we trust, passed away, and the influence of upright Christian laymen is rapidly on the increase. There is too a decided improvement in the character and principles of our rulers. Doubtless there were, in former years, a Charles Grant and a Parry in the Court of Directors, but the predominant influence was that of the Scott Warings and Twinings, who wished to exclude all Christianity from India. Things are different now, as many recent despatches show ; and far be it from us to pass lightly over the gratifying fact. But much remains to be improved. When it is remembered that only three years ago, the acting Resident at Nagpore compelled the missionaries to give up a convert to be imprisoned by the heathen Rajah, on the ground that the treaty forbade the English authorities to ‘aid’ his ‘discontented subjects ;’ and that this extraordinary measure, justified by this strange reason, was formally sanctioned by the present Governor General—it will be seen at

once, that the improvement we speak of, is only comparative. But on these topics we shall not enlarge further than to express our earnest desire that men of Christian zeal and courage may be raised up to rule this land; and that henceforth the name of Christian may not be spoken of among the heathen, as it was in former days.

At present we shall confine our view solely to the direct promotion of Christian Missions in Hindustan by Christian men, as such, and to the efforts of Missionary Societies. And when we consider the gigantic field open to those efforts; when we consider the perfect freedom, protection and safety, with which they may be carried on; when we survey the vast regions, the thickly peopled towns and villages, the millions of people within our reach; when we see the strength of those superstitions, which hoar age has hallowed and a spurious learning has defended and explained; when we behold the power of the Brahminical priesthood and the firm bonds of the caste system; when we see how, in the vast population, reason has been perverted and conscience degraded—we shall feel compelled to ask;—“*Is there not a cause*” for the warmest zeal, the purest self-denial, the greatest tenderness, and the most scrupulous fidelity, on the part of all, who are called to take up this great duty, and to engage in this gigantic toil?

Attempts to Christianize India, in whole or in part, have been repeatedly made, during a period of more than three hundred years; and four distinct plans of operation have been adopted, for accomplishing that end. The Portuguese, backed by King John, and led on by their fighting priests, endeavoured to compel the people of Ceylon and South India to receive their faith, by bloody massacres, cruel persecutions, imprisonments and fines. We read of no sermons preached; no distribution of the Bible effected by them; but we find, that they ‘demolished, burnt and rooted out’ the ‘pagan temples,’ sought to abolish the heathen sports, and ‘severely punished’ obstinate recusants. The Jesuits, in the same part of the country, endeavoured to accomplish the same end more thoroughly, by a persevering system of the most stupendous frauds ever committed under the sun. They pretended to be Brahmins of the highest caste; they dressed like Sanyasis; adapted their manners, dress and food to those of the heathen; forged a Veda; denied that they were Europeans; and, to support their character, resorted to the most unblushing lies, during a period of many years.

The Dutch Government next entered the field; and, in

addition to setting before the heathen the same example of dishonesty, covetousness, falsehood, licentiousness, cruelty and intolerance, which they had seen in their predecessors the Portuguese, they sought to bribe the Singhalese to adopt Dutch Presbyterianism by the offer of places and situations; and to terrify them into it, by refusing all Government employ, and even the farming of land, to all who were not baptized, and had not signed the Helvetic Confession of Faith. Each of these three plans acquired thousands upon thousands of nominal converts, but nothing more. Neither cruelty nor fraud, nor appeals to self-interest, laid the foundation of a sincere and permanent Christian community. It naturally followed, therefore, that these thousands of converts returned to the Heathenism of their fathers, as soon as the efficient cause of their profession was withdrawn.

‘ They melted from the field, as snow,
When streams are swollen and south winds blow,
Dissolves in silent dew ’

In 1802, there were 136,000 Tamil Christians in Jaffna: but in 1806, after the English conquest, Christianity was ‘ *extinct*.’ Of the 340,000 in the Singhalese district, in 1801, more than half had relapsed into Buddhism by 1810, and others were fast going. The Roman Catholics of South India, the descendants of the Jesuits’ converts, and numbering some 40,000, are at this day scarcely distinguishable from the heathen. Their ceremonies are, to a great extent, the same; the names only of their deities differ. Such are the results of the early attempts to convert the natives of Hindustan: attempts of which two were made, not by the teachers of Christianity, but by the Governments of Europe.

The *fourth* and last plan of missionary operations adopted in India, is that employed by modern Missionary Societies. It is that of endeavouring to convince the Hindus of the evils of idolatry and of the truth of Christianity, by preaching to the old, by teaching the young; by giving to all the Bible and Christian books in their own tongues; by endeavouring, in a word, to enlighten their understandings, to instruct their ignorance, to convince their judgments, and draw their hearts; so that they may become willing converts, and abide in the faith, which they are persuaded to embrace.

The series of efforts made in India, on this plan began with the labours of the Tranquebar missionaries, in 1706. In that year, Ziegenbalg and Plutsch, the well-known founders of that useful mission, entered on the work of preaching the gospel

in the vernacular tongue, and, for more than a century, did they and their successors continue to carry it on. Until a few years ago, little was known of the extent and character of their work, of the stations they had founded, the missionaries who had laboured, the incidents which had happened, and the results by which their labours had been followed. A recent work,* however, has brought the subject prominently to light, and has enabled the Christian Church to see on what an advantageous ground the work of missions was placed in South India during the last century. But that mission was almost entirely a Continental one. Begun by the King of Denmark, it was supplied almost entirely in men, and subsequently in money also, from the Evangelical Church and University of Halle, sustained by Augustus Herman Francke, and his illustrious successors. The light, which God had kindled in that Prussian town, sent its rays far into Southern India: so long as it continued steady, the mission stations prospered greatly: but, when it faded and at last expired, the missions languished and expired too. During last century, more than fifty missionaries arrived in India, in connection with the Tranquebar Mission. Amongst them, Ziegenbalg, Schwartz, and Gericke, are well known to English readers. But Dr. Schultze of Madras, the first Telugu scholar and translator of the Telugu Bible; Huttemann of Cuddalore; Breithaupt, Fabricius, and Dr. Rottler, all of Madras—the last, a man of science and a scholar; Kohlhoff of Tanjore, the companion of Schwartz; Dr. Cæmmerer; Dr. John of Tranquebar, the first founder of English Mission Schools; with Klein, Zieglin and Weidebrock, Pressler and Pohle, Horst and Kiernander, some of whom continued their patient labours for more than fifty years, deserve no less esteem. Through those labours the mission branched out in various directions. From Tranquebar it spread first to Tanjore, then to Madras and Cuddalore; then to Negapatam and Palamcottah: and from these servants of Christ, the province of Tinnevely received its first right impressions of Christian truth. They employed the same agencies in their work, as others do at the present day. They preached in the native languages: they undertook extensive journeys; they gathered Christian congregations, taught numerous schools, translated the Bible into Tamul, and laid the foundation of a Christian literature. Several of their native converts were ordained to the ministry, while others aided them in their schools. The

* Hough's History of Christianity in India, vols. iii. and iv.

number of their baptized converts amounted, altogether, to more than fifty thousand: and, had their labours been properly sustained, and the places of those who died been filled up, they would have done much towards bringing the whole of Southern India under Christian instruction and influence. But the springs, whence their waters came, began to dry up. German neology usurped the place of Bible truth. The missionaries, that came towards the end of the century, were few and far between: and at last ceased altogether. In 1806, only six missionaries, and in 1816 only three remained, supported, with one exception, entirely by English funds. Under these circumstances, many of the native churches, as was natural, fell away and were scattered; the schools were closed; the missions lost their distinctive character; and at length, their remnants became totally absorbed in the proceedings of other and more active missionary agencies. Perhaps one cause of their rapid decline arose from the mighty error, which had been committed from the first, of allowing native converts to retain the caste usages, which they had followed as Hindus: an error, which long existed in subsequent missions, and is retained, by the successors of the Tranquebar missionaries at the present hour.

The modern era of missions in India begins with the founding of the Serampore Baptist Mission in 1799. The continental Christians had retired from the work; but the churches of England and America had awoke to their duty, and were seeking to fulfil it. Within a few years, stations were established in Calcutta, Madras and Bombay, and began to push outward into all the Presidencies of Hindustan. The beginnings were slow but sure. One society, then another—one missionary and then another, landed on the coast, and took up their posts on the great battle-field of idolatry. The LONDON Missionary Society sent missionaries to Chinsurah; to Travancore; to Madras, Vizagapatam and Bellary; to Surat; and lastly to Ceylon. The AMERICAN Board, after some opposition from the Government, occupied Bombay. The CHURCH Missionary Society entered first on the old Missions at Madras, Tranquebar and Palamcottah: but soon began an altogether new field, among the Syrian Christians in West Travancore. They planted a station at Agra, far in the north-west, and maintained the agency, which Corrie had employed at Chunar. A native preacher began the work at Meerut, while two missionaries were stationed in Calcutta. The BAPTIST Missionary Society soon occupied Jessore, Chittagong, Dinagepore and other places; and also began its mission in Ceylon. In the latter island, the

WESLEYANS speedily followed them ; and to them succeeded the missionaries of the American Board. North, south, east and west, the church of Christ was pushing forth its men and means into the land with vigour and earnestness of purpose. The Bible Society aided the missionaries in translating the inspired word, and, within a few years, it was circulated among the various nations of India, in several languages, for the first time. In thus endeavouring to occupy the vast field opened before them, the missionaries and their advisers were at first compelled, from want of experience, to act much at random. Numerous were the errors and mistakes they fell into ; mistakes to which all new colonists are liable in all lands. Much of their time and energy also was devoted to the spiritual benefit of their destitute countrymen, who suffered from a most grievous deficiency of the means of grace. They had to create facilities for acquiring the languages of India, for learning the superstitions, notions and habits of its people. They had to create their various agencies, and to begin the very simplest plans for applying gospel truth to the ignorant objects of their care. But they had a spirit powerful to meet difficulties and put them down : they had a noble object in view ; and they laboured, looking to that fruit which begins already to gladden the eyes of their successors. In spite of inexperience, in spite of discouragements and difficulties, arising from the language, the people and their irreligious countrymen, they laid a broad and solid foundation for future sure success. And now their successors can enter at once upon their work, with abundant facilities of every kind, for its speedy and effective application. Honour be to the men, who thus bore the burden of the first and hardest toil ! Eternal honour be to that Lord, who enabled them to exalt the valleys and make low the hills ; to make the crooked straight and the rough places plain, that the glory of the Lord might be revealed and all flesh see it together !

Steadily advancing in their efforts, in the year 1830, after a lapse of twenty-five years from the entry of most societies into India, the missionary agencies stood thus : There were labouring in India and Ceylon, TEN Missionary Societies, including the great Societies of England and the American Board : the missionaries were A HUNDRED AND FORTY-SEVEN in number, and their stations were A HUNDRED AND SIX, scattered over all parts of the country. Since then, however, the interest felt by European and American Christians in the conversion of this country, has greatly increased, and renewed exertions to secure it have been put forth with vigour. The discussions concerning the

Suttee ; the removal of old restrictions by the last charter ; the publication of numerous works on Indian Missions ; and the appeals made to Christian churches, have shown that India is one of the noblest fields where missionary labour may be carried on. The result is that, during the last twenty years, those churches have nearly TREBLED the agency previously employed, have greatly enlarged the sphere of their operations, and are beginning to reap the most substantial fruits. With a view to exhibit these results completely and with scrupulous exactness, we have lately entered into very extensive correspondence with missionaries in different parts of India, and passed under careful review a large collection of Missionary Reports, together with the recent religious literature of the various Presidencies. The facts thus elicited have been formed into a statistical table, and the following is a brief statement of its results.

At the close of 1850, fifty years after the modern English and American Societies had begun their labours in Hindustan, and thirty years since they have been carried on in full efficiency, the Stations, at which the gospel is preached in India and Ceylon, are two hundred and sixty in number ; and engage the services of FOUR HUNDRED AND THREE MISSIONARIES, belonging to twenty-two Missionary Societies. Of these missionaries, TWENTY-TWO are ORDAINED NATIVES. Assisted by FIVE HUNDRED AND FIFTY-ONE NATIVE PREACHERS, they proclaim the word of God in the bazars and markets, not only at their several stations, but in the districts around them. They have thus spread far and wide the doctrines of Christianity, and have made a considerable impression, even upon the unconverted population. They have founded THREE HUNDRED AND NINE NATIVE CHURCHES, containing seventeen thousand, three hundred, and fifty-six Members, or Communicants, of whom five thousand were admitted on the evidence of their being converted. These church members form the nucleus of a NATIVE CHRISTIAN COMMUNITY, comprising ONE HUNDRED AND THREE THOUSAND individuals, who regularly enjoy the blessings of Bible instruction, both for young and old. The efforts of missionaries in the cause of education are now directed to thirteen hundred and forty-five day-schools, in which *eighty-three thousand, seven hundred boys* are instructed through the medium of their own Vernacular language ; to seventy-three boarding schools, containing *nineteen hundred and ninety-two boys*, chiefly Christian, who reside upon the missionaries' premises, and are trained up under their eye ; and to one hundred and twenty-eight day-schools, with *fourteen thousand boys and students*, receiving a secular and religious educa-

tion, through the medium of the English language. Their efforts in FEMALE EDUCATION embrace three hundred and fifty-four day-schools, with *eleven thousand, five hundred girls*; and ninety-one boarding schools, with *two thousand four hundred and fifty girls*, taught almost exclusively in the Vernacular languages. The BIBLE has been wholly translated into *ten languages*, and the New Testament into *five*, not reckoning the Serampore versions. In these ten languages, a considerable Christian literature has been produced, and also from twenty to fifty tracts, suitable for distribution among the Hindu and Mussulman population. Missionaries have also established and now maintain twenty-five printing establishments. While preaching the gospel regularly in the numerous tongues of India, missionaries maintain English services in fifty-nine chapels, for the edification of our own countrymen. The total cost of this vast missionary agency during the past year amounted to ONE HUNDRED AND EIGHTY-SEVEN THOUSAND POUNDS; of which thirty-three thousand five hundred pounds were contributed in this country, not by the native Christian community, but by Europeans. A few comments on these expressive facts may put them in a clear light.

The various Missionary Societies, from whom these efforts spring, are twenty-two in number. Besides the great Missionary Societies of England, the Established and Free Church of Scotland's Missions, and the American Board, they include the American Presbyterian Church; the American Baptist Missions; six societies from Germany, of which the Society at Basle ranks first in its amount of agency: the General Baptist Society; the Wesleyan Society; the Irish Presbyterian Church, and others. To these we must add the six Bible and Tract Societies of England and America. It is a most gratifying fact that, notwithstanding the numerous and sometimes bitter controversies, which occur among Christians of the western world, their missionary messengers in the East Indies exhibit a very large amount of practical and efficient Christian union. While occupying stations apart from each other, and thus avoiding occasion of mutual interference with each other's plans, in numberless instances the labourers of different societies cultivate each other's acquaintance, and preach together to the heathen. Almost all use the same versions of the Bible; and the Christian tracts and books written by one missionary become the common property of all others. At Calcutta, Madras and Bombay, the missionaries of all Societies are accustomed to meet monthly, for mutual conference and united prayer. In these meetings, questions relating to the more efficient

conduct of missionary operations, to common difficulties and common success, are brought forward and discussed; while frequent occasions are furnished in private, for cultivating personal friendships of the closest kind. Of the exceeding value of such union, as well as of its duty, scarcely too high an estimate can be made. In a land so given up to all moral abominations, as India is, never could 'the Prince of this world' obtain a greater victory over the preachers of the cross, than by inducing them, on trivial grounds, to turn their arms against each other. And never can the agents of Christ's church so justly hope for a sure triumph, as when they obey their Master's command in striving, with common efforts, with undivided affection and united prayers, for the extension of His kingdom and the conversion of perishing souls. Let us hope that the 'Evangelical alliance' of Indian missionaries, throughout this great continent, may become more close, more pure, more sincere and more efficient every day: and that the few, who, in pride of sect, stand aloof from others, may lay aside their estrangement, and become *one* with their brethren and fellow labourers in the Lord's work! It is when men "see eye to eye" that the Lord has mercy upon Zion.

The Missionary agency, connected with the direct preaching of the gospel to young and old, is thus distributed:—

	Missionaries.	Native Preachers
In Bengal, Orissa and Assam	101	135
In the North West Provinces	58	39
In the Madras Presidency.....	164	308
In the Bombay Presidency	37	11
In Ceylon	43	58
	103	551

The numerous band of missionaries here mentioned constitutes more than one-fourth of the entire body of missionaries sent into all parts of the world; and furnishes a splendid proof of the deep interest, which Indian Missions have aroused in the church of Christ. It must, of course, be supposed, that of the whole number, some were absent from their stations during the year, through ill-health; and we believe, that *twenty* were so situated. The number of missionaries, that died during 1850, was four. A careful examination of the different periods, during which these missionaries have laboured in India,

will at once explode a fallacy, widely circulated among the friends of missions, in relation to the length of missionary service. It is generally believed that in this country, owing to the deadly climate, the average duration of missionary life is seven years; and many have come out as missionaries under the idea, that they would be certain to meet with a premature death. But this is a great mistake. From a careful induction of the lives or services of two hundred and fifty missionaries, we have found, that hitherto the average duration of missionary labour in India has been sixteen years and nine months each. It was, doubtless, much less at first; and numerous cases can be adduced, in which young missionaries were cut off after a very short term of labour. But a better knowledge of the climate and of the precautions to be used against it, the use of airy dwelling-houses and light dress, with other circumstances, have tended very much to reduce the influence of the climate and preserve health: so that the average duration of life and labour is improving every year. As an illustration of this fact, we may state, that out of the 147 missionaries labouring in India and Ceylon in 1830, fifty [we can give their names] are still labouring in health and usefulness; while of the ninety-seven others, who have since died or retired, twenty laboured more than twenty years each. Several living missionaries have been in India more than thirty years. It is a remarkable fact, that the average missionary life of *forty-seven* of the Tranquebar missionaries, last century, was *twenty-two years each*.

The NATIVE PREACHERS associated with missionaries form, on the whole, a large body, though in each station they appear few in number. They constitute the best portion of the native church in India, and are engaged in the useful work of instructing their converted countrymen, or of preaching to those still in idolatry. Whilst missionaries rejoice in the co-operation of these native fellow-labourers, they are quite alive to the imperfections of their religious character, and their want of ability to carry on the work of missions by themselves. Some have attained to character of a high rank, and give much satisfaction by their consistency, their earnest zeal, and readiness to seek other's good: but the majority share in the weaknesses and defects of their fellow countrymen, and often give pain to their friends by the inconsistencies and follies, into which they occasionally fall.* Were the great body of native Christians better, some, who are now native preachers and

* It is but fair to state that not a few of the better educated converts are young men of distinguished ability and exemplary life, and give promise of great future usefulness.—Ed.

have been appointed from the necessity of the case, would be set aside for others of a higher Christian character. Efforts are being made in all parts of India to train a superior class of preachers; and, if it be made a *sine qua non* in all missions, that native preachers shall be men of clearly manifested piety and of active intelligence, and that they shall receive a good education (especially in their own language) before they are appointed, we may hope to see the great body of teachers greatly improved in character and influence during the next thirty years. The rule to be adopted in choosing them is clearly stated in the Bible, and ought to be scrupulously observed;—"The things which thou hast learned among many witnesses, the same commit thou to *faithful* men, who shall be *able to teach* others also."

The various STATIONS occupied by missionaries throughout India are TWO HUNDRED AND SIXTY in number. They are scattered very unevenly over the surface of this great continent; but form a pretty continuous chain throughout the three Presidencies and the island of Ceylon. They are thus distributed:—

Bengal, Orissa and Assam have	69
The North West Provinces.....	24
Madras Presidency	113
Bombay Presidency	19
Ceylon	35

In the Bengal Presidency, they are situated chiefly in the larger towns, that lie on the great rivers by which the country is intersected, as the Ganges, Hooghly, Jumna, Megna, and Brahmaputra. In that of Madras, they have been fixed in the towns between the hills and the sea, on both sides of the continent; and in Ceylon, along the sea-coast. A few mission stations are located in the salubrious climate of the hills. A slight glance at the map of India will shew how little these stations can effect for the thorough proclamation of the gospel in all parts of India: and how thoroughly insufficient the present amount of agency is for the grand object which it is intended to effect. It is true that the chief towns of the Presidencies, as is most just, are not ill supplied with missionaries. Calcutta, the metropolis, has twenty-nine missionaries, labouring at twelve different stations in the city; Benares has eleven; and Agra eight. In Madras there are twelve stations and twenty-five missionaries: in Bombay, four stations and thirteen missionaries; while Colombo has but two missionaries at two mission stations. Other stations have but two or three missionaries; and the majority only one. Scattered

throughout the country, there are whole districts, with numerous towns, villages and a dense population, that never hear the word of God at all. The position occupied by Europeans in India proves that "the Lord hath surely called us to preach the gospel" to its idolatrous people: but the cry "Come over and help us" is in many places unheeded. Were missionaries to be thoroughly successful in their present spheres, they would have yet to acknowledge; "There remaineth much land to be possessed."

The NATIVE CHRISTIAN CHURCHES in India, established by missionaries, now amount to THREE HUNDRED AND NINE. Some of these contain numerous members; but the great majority have but a few. It must be remembered, that the standard of admission into these little societies is not every where the same. Some missionaries admit members only upon good evidence of their conversion, arising from competent knowledge and consistency of Christian conduct. Others require merely a certain amount of knowledge in their communicants, and the absence of great inconsistencies. By some the Communion of the Lord's Supper is considered a church privilege, to be enjoyed only by those who can appreciate it. By others it is counted a means of grace, which shall fit men for understanding its ends. The number of members admitted on the higher standard is *five thousand two hundred*: of those on the lower *twelve thousand*. The care of these infant churches constitutes one of the missionary's hardest trials. While it is a matter of thankfulness and joy to see their members forsaking idolatry, seeking the true salvation, and attending regularly the means of grace, their defects, their backslidings and the grievous falls into sin, which sometimes occur, prove how imperfect their character is, and give him many a bitter hour. It is scarcely just to look for any high general development of Christian excellence, amidst the dense heathenism of India, and amidst a people as low in moral goodness as any in the earth. The evil may be accounted for; how to devise a remedy is more difficult. Careful pastoral superintendence, and instruction, raising the standard of admission into the body of communicants and members, and the faithful administration of Scripture discipline, may, under the divine blessing, tend to the elevation of native Christians, and by degrees, diminish the evils which prevail among them.

Connected with the native churches, is a body of individuals, cut off entirely from the great communities of Hindus and Mussulmans. It includes not only the families of native Christians, but of many others, who have cast off the restraints of Heathenism, and placed themselves under the influence of the

Gospel. Though but nominally Christian, they are all under regular Christian instruction; the children especially are cared for in schools; and, under the blessing of God, much good may be effected among them in the future. It only remains to state how they are distributed:—

	Churches	Members	Christians
Bengal, Orissa and Assam ...	71	3,416	14,401
North Western Provinces ...	21	608	1,828
Madras Presidency	162	10,464	71,512
Bombay.....	12	223	554
Ceylon	43	2,645	11,859
	309	17,356	103,154

The labours of missionaries in the education of the young occupy an amount of time and attention, second only to those connected with the preaching to adults. The share, which Education occupies in the great work of India's renovation, must, from its amount, greatly astonish, as well as gratify, all who are interested in that object. The schools for boys are of three classes. **VERNACULAR SCHOOLS** have been established, chiefly, for the benefit of the heathen; but are, in many localities, beneficial also to the children of native Christians. Of course, the Scriptures are taught in them all, either by a missionary or native preacher, or both. In the majority of these schools, the general education given is not of a high character; consisting of reading, writing and the elements of general knowledge, in addition to Scripture instruction. In some, however, in North India, and in others among the large Christian congregations of South India and Ceylon, the education is of a very superior kind.

BOARDING SCHOOLS have, in many stations, been established upon missionaries' premises, for the benefit of orphans and the children of native Christians. Besides imparting a good Vernacular education, they have the advantage of keeping their young charge away from the evil influences of private heathen life, and retaining them continually under the power of Christian example and discipline. Several of the boarding schools in South India and Ceylon, exhibit this extraordinary peculiarity, that *Hindu boys and young men reside on the mission premises and eat food there, without losing their caste.* Such a fact is utterly unheard of in North India, and shews, how different, in some of its practical details, the caste-system of

South India is from that of other parts of Hindustan. The same is true also of Female Boarding schools.

THE ENGLISH Missionary schools are confined to those parts of the country, where a strong desire is felt for acquiring the English language. They are most numerous, and have the largest number of scholars, in and around Calcutta. In that city and its neighbourhood they amount to nine schools, or Institutions (as they are generally called), and contain more than *five thousand scholars*, of whom three hundred are young men, deserving the name of college students. The same desire for an English education, though to a smaller extent, we find in Benares, in Bombay and Madras; in which cities also most efficient missionary institutions have been established. In other parts of India, the scholars are comparatively few in number. The English Missionary Institutions occupy a sphere of usefulness peculiar to themselves. They convey Bible truth, in connection with a high degree of intellectual training, to the minds of lads and young men some of them belonging to the upper and wealthy ranks of Hindu society. This class is left almost untouched, in many districts, by vernacular education, or vernacular preaching; but, through the English schools which they attend so eagerly, they receive the gospel as well as others. A great change has already been produced by means of these schools. Missionary schools are distributed throughout Hindustan, as follows:—

	Vernacular day Schools.		Boarding Schools.		English Schools.	
	Schools.	Boys.	Schools.	Boys.	Schools.	Boys.
Bengal, Orissa, and Assam	127	6,369	21	761	22	6,054
N. W. Provinces	55	3078	10	209	16	1,207
Madras Presidency	852	61,366	32	754	44	4,156
Bombay Presidency	65	3,848	4	64	9	984
Ceylon	246	9,126	6	204	37	1,675
	1,345	83,787	73	1,992	128	14,076

FEMALE EDUCATION has occupied much of the attention and anxieties of missionaries; but such powerful hindrances lie in its way, as to have greatly crippled the efforts, which they were desirous of making. Boarding schools for orphans and

the daughters of native Christians have been most successful; many of the most intelligent and best-behaved of the native Christian women have there received their education. Many of the orphans, saved from desolating famines, or from the murderous Meria sacrifice, owe life and name to these Christian sanctuaries. But female day-schools have, in most parts of India, met with little encouragement. The habit of secluding females prevents the wealthy from attending them; and the early marriage of the scholars (at the age of eleven or twelve) takes away those who do attend, just when they are beginning to learn. In Bengal there are very few of these schools now; though at one time they were most numerous, especially in Calcutta. In Madras, however, and in Bombay, they flourish much better. The female schools are thus distributed:—

	Day Schools		Boarding Schools	
	Schools	Girls	Schools	Girls
Bengal, &c.....	26	690	28	836
N W Provinces	8	213	11	208
Madras Presidency	222	6,929	41	1,161
Bombay Presidency	28	1,087	6	129
Ceylon.....	70	2,630	5	172
	354	11,549	91	2,446

A portion of missionary labour in India is employed in ENGLISH RELIGIOUS SERVICES, for the benefit of our European countrymen. Though this is not professedly the duty of a missionary, it is frequently beneficial to many, who would otherwise be deprived of the means of grace altogether. By maintaining such services, missionaries may 'save souls from death;' may remove hindrances to their work among the heathen, and raise up friends, who will aid them in carrying it on. The total number of such services regularly maintained is FIFTY-NINE; of which twenty-one are in the Bengal Presidency, seventeen in that of Madras, and twelve in that of Agra.

Lastly, the work of TRANSLATING the Word of God and of publishing Christian works in the various languages of India is another object, to which considerable missionary labour is

devoted. There are in India eight Bible Societies in all, auxiliary to the two great Societies in England and America, and to those of the Baptist churches. During last year, they published 130,000 copies of the Bible, or selections from it, in thirteen languages ; and distributed 185,400 copies. These Societies are endeavouring, in some parts of India, to supply every family with a portion of the Word of God. There are also fifteen Tract Societies, who receive grants of money, paper and books from the English and American Societies, and are engaged in supplying works for native Christians, short tracts, or expositions of Bible truth for the heathen, and school books for missionary schools. These Societies help greatly to make the preaching and teaching of missionaries more effective, and to render their agency more lasting.

The total cost of all these missions, as we have already stated, including all items of expenditure, amounted in 1850, to ONE HUNDRED AND EIGHTY-SEVEN THOUSAND POUNDS. The items included are, the salaries of missionaries, the expenses of missionary journeys, the expenses of native preachers, of schools, and of the circulation of Christian books. Of the whole sum, £153,460 were drawn from Europe and America ; and the munificent sum of £33,540 was contributed by Christians in this country. It is surely a remarkable fact, that while the East India Company, with an annual revenue of twenty millions, has expended so little for the physical improvement of their great empire, for roads and bridges, and the acceleration of safe and rapid communication, the Christians of Europe, America, and Hindustan, are found devoting of their own accord the sum of more than *eighteen lakhs of rupees* to the spiritual interests of the Hindus ; a sum not drawn from Government resources, but made up of the free-will offerings of Christians of all denominations.

Such is the amount, and such are the varieties of agency, employed at the close of the half century just past, for spreading Christianity among the people of India. Each kind of agency has long been in operation in the older localities ; and missionaries are seeking to render all efficient, wherever they are employed. Each too has met with the most gratifying results. The public preaching of the gospel in the bazars and markets, in private houses, and in the great assemblies of idolatrous pilgrims, has led many a Hindu to become the disciple of Christ, and has induced many more to doubt about the efficacy of their own religion. The instructions of day-schools have brought numerous young men to give up all for the gospel ; and the Christian influence of boarding schools has led those, who were Christian in name, to seek for conversion of heart. Through

their means, Christian young men have come forward to teach their countrymen; and Christian women have maintained a consistent profession before many witnesses. The circulation of the Bible and of religious tracts has not only excited enquiry and given instruction, but has proved, in numerous individual cases, the direct means of converting the soul. And the continued preaching of the gospel and administration of the ordinances of the church have been the means of building up small bodies of native Christians, the nucleus of larger communities yet to be gathered. The approval of the Lord, in whose name the work is carried on, has rested upon all these branches; and, amid many difficulties, has encouraged his servants to persevere.

But the question is often asked; Does the number of native church members, and of natives under Christian instruction, exhibit such a result, as all the great labours of the past fifty years lead us to expect? In other words, have missions been successful, or a comparative failure? Missionaries and others interested in the conversion of India have often discussed the matter; but different opinions have been entertained; some considering that the results are fully equal to what might have been expected; others thinking that, for some reason or other, they fall short of them. It is not difficult to perceive that these differing conclusions arise from the different expectations, which their advocates had previously formed, from the kind of results looked for, as well as from the standard, by which those expectations were measured. Before examining into the question, we must remember *first*, that a large portion of the missionary agency now employed has been in operation too short a time to allow us to judge definitely of its final fruits. Nearly two thirds of the missions existing in Hindustan have been established less than twenty years; and several even less than ten. How could they have brought forth finished results within so short a time? We must remember also the peculiar manner in which missions work on the country. An indigo planter or sugar manufacturer can soon tell whether the district he cultivates gives him a due return for his labour and for the expensive factories he has erected. A farmer can tell, after a complete season, the capabilities of his farm. But it is not so with missions. Human society is slower in changing its views, than is the physical world in bringing forth its fruits. In undertakings beset by great obstacles, as in railroads, vast labour is expended before the uses, to which they are designed, are effected in the smallest degree: and for many years after they have begun to succeed, the 'block,' the 'fixed capital' expended at first, is regarded as the source of present gain. ~~And~~ from the actual

converts already gained (no mean number, however), we consider the 'block' of Indian missions one of the greatest results attained. A most valuable and effective agency has been prepared and set going; and long will it be before the results of labours, hitherto done, are exhausted and cease to flow. Of this we shall speak more fully hereafter. We will only mention a single fact here, to show the folly of too great haste in looking for the spiritual fruit of missions in India. In the beginning of the present century, the Rev. D. Palm was sent by the London Missionary Society to the province of Jaffna in Ceylon: but, after several years' labour, the mission was reported a failure; and it was abandoned. The missionaries of the American Board entered upon the abandoned station; and, on coming to Tillipally, the natives immediately brought to their notice a lad, who had been one of Mr. Palm's scholars. He became their *first* Tamil schoolmaster, was baptized in 1824, was licensed as a catechist, and died as such, after exhibiting for many years a consistent Christian deportment. "The fruit of six cocoanut trees, near the mission-house, planted by Mr. Palm, and of which the American missionaries have eaten for thirty-five years, is but emblematical of the higher fruits they have gathered from the labours of one, whose mission was accounted a failure."

To form a sound and correct judgment on this matter, we must examine the missions in Hindustan by the measure of success, which has been granted to other missions in other ages and in other countries of the world. We must find cases parallel to our own in all their bearings, and judge of our results by theirs. To do this thoroughly would require an immense induction of a great variety of particulars, and would lead us away from the immediate object of this paper. We can only indicate therefore, in few words, the view we hold of this important subject. We cannot compare the modern missions in Hindustan with the establishment of Christianity among the Franks by Clovis; among the Saxons by Charlemagne, after a thirty-three years' war; among the Danes by Otho the Great; in Norway, by Olaus Trygvessen, or his successor Olaus the Saint; among the Slavonians, by the Dukes of Saxony; among the Russians, by Vladimir; or in Prussia, by the Teutonic Knights. Most of these missions were missions of force, not of persuasion: they were carried on by warlike Governments with swords and spears;—not by believing men, who aimed to enlighten and convert. Neither can we compare them with the Spanish missions to Mexico and Brazil, or with the missions of the Portuguese and Dutch in this ~~your~~ country. Persecution, civil disabilities and

fraud, are not the agents, which the Saviour of men bade his followers employ in Christianizing the nations ; and we have wisely given them up. We must, therefore, for a just comparison, fall back upon the early missionary success of the apostolic age, or look to modern missions in other lands. A glance at both will help to put our position in India in a clear light.

The missionary labours of the apostolic age were grand in their character, rapid in their operation, and gigantic in their results. But from what agencies did those results spring ? We must look for them not merely from the day of Pentecost ;—not merely from the time, when the preachers began to declare their gospel message of mercy. The work of preaching to be successful must have ready hearers, as well as zealous teachers : and although it was only from the day of Pentecost that men began to preach, yet the Providence of God had been preparing the minds of the hearers for more than three hundred years previously. For more than three hundred years, He had been moulding the nations, uniting them together, removing hindrances and creating facilities, for the conversion of the world : and it was not till “ the fulness of time ” was come ; not till all the preparations were completed, that “ God sent forth his Son.” Without due attention to this important fact, we cannot correctly estimate the progress of Christianity on its first establishment. By the wars, which took place during those centuries, old societies were broken up and old notions scattered ; while the frequent intercourse of different nations with each other tended to expand the minds of all. The universal empire of Rome became the means of binding all those nations by one common authority under one common law : especially when accompanied by the great privilege of Roman citizenship. The wonderful spread of the Greek language, of Greek manners and Greek notions, tended to the same end. The different religions of the world were brought into contact, and their follies and mutual contradictions, brought them all into contempt. Philosophy tried to fill up the void produced, but miserably failed : and the desire for religious truth, being unsatisfied, led men to look for a special deliverer, who was to enlighten all nations. The dispersion of the Jews also wonderfully aided the desired result. From the days of Shalmaneser, they went east-ward ; from the days of the Ptolemies, they went west-ward ; until Syria, Asia-Minor, Greece, and Italy, were filled by their synagogues and their religious discussion. By their zeal for Judaism, they gained over thousands of proselytes, and so annoyed the old idolatrous parties, as to draw down on their head severe persecutions. Under these circum-

stances it was, that the pure gospel of Christ was preached, 'with the Holy Ghost sent down from heaven,' accompanied with the gift of tongues and the power of working miracles; and the influence of this grand and extensive preparation met with magnificent success. How differently placed is the work of missions in India at the present day! With the Apostles the preparations were completed: with us they have had to begin. With them old things had passed away; with us they exist still. They had but to reap: we have to sow. Who can wonder then that with few agents, in a foreign clime, and speaking foreign tongues, the work in Hindustan has fallen, and will continue to fall short, of the splendid results which they attained?

Neither do we find an exact parallel between missions in India and the successful missions of modern days elsewhere. We cannot compare them with those in Greenland, or South Africa, or the West Indies, or among Brainerd's Indians, or in the South Sea islands. A mighty difference meets us at the very outset. The tribes in these localities were uncivilized in the last degree; while the Hindus have a civilization, extending back more than three thousand years. Those were without a written language: these have thirteen polished languages, each with its own character, and an extensive literature in one of the oldest languages of the world, the Sanskrit. Those were debased and ignorant; while the Hindus are educated. In those, reason was undeveloped: in the Hindus it is perverted, and has become an enemy far more difficult to deal with. Those had but few gods and a small number of priests; these worship numerous principal deities, honoured by expensive festivals, by a daily ritual, and upheld by a powerful and exacting hierarchy. Those had fettered the natural ties of kindred and social union with no unnatural laws; but these have superadded to natural ties the stringent rules of *caste*, the breach of which renders the transgressor a vagabond and outcast. Even with all the facilities for the progress of truth among those tribes, years passed in each instance before great results were attained in the conversion of many souls. What delay, therefore, might we not expect in Hindustan, amid the numerous difficulties which its case presents?

The circumstances of our Indian missions, seem to us altogether unique and peculiar. In its idolatries, India resembles other lands, it is true; but in its numerous ancient and venerated *Shastras*; in its lordly and powerful priesthood, the monopolists of its ancient learning; in its well-bound family-system; and above all, in its bonds of *caste*, it presents difficulties and obstructions to the progress of Christianity, such as it has not

met before. Triumph it will over all these obstacles; it has begun to triumph already: but there may, there must be delay, before the complete triumph is achieved; and when it does come, it will be one of the most signal and illustrious that the world has ever seen. The dam, which stands before the trickling rill, and leaves its tiny waters to fall in slender strings over its grassy ridge, shakes, quivers, falls before that rill, swollen to a mountain torrent, and pressing forward its pent-up waters. And thus is it with Christianity in this 'day of small things.' Caste may form a barrier to its passage; but the knowledge of the gospel is increasing and accumulating among the people, whom the bonds of caste restrain. Already has it begun to shake, and its defenders, fearful of a crash, have rushed to its defence: but they cannot stay the weight and force of Christian truth. In due time their system must give way; and there will be a steady and continuous flow of Hindu families into the church of Christ.

We look, with some satisfaction, on the little band of native converts already gathered from among the people of India. They may be few in number; but they are proofs that the work of the church has not been carried on in vain. They are an earnest of the great results, at which missionaries aim, and which must ultimately follow. They may be few in number; but considering the difficulties, that have been encountered and overcome, we need feel no surprise. Even in their fewness, we learn a fact most encouraging in relation to the future. It has been shown that the ratio of their increase is steadily progressing. A statistical paper, laid before the Missionary Conference in Calcutta, a few years ago, shewed that in Lower Bengal, exclusive of Krishnaghur, the accessions of native converts to the Christian church had been made thus:—

From 1793 to 1802.....	27
„ 1803 to 1812.....	161
„ 1813 to 1822.....	403
„ 1823 to 1832.....	675
„ 1833 to 1842.....	1045
In 1843 and 1844, <i>two years</i>	485

With the increased agency now employed, and its greater efficiency, we may hope for results far higher and more numerous than these.

But the accession of native converts is but a small part of the results, which missionary labour has secured in India and Ceylon. The wide and extensive preaching of the gospel; the spread of Christian knowledge; the infusion of Christian ideas

into native minds: the preparation of an efficient system of agency, and of materials which that agency may employ; the acquisition of valuable experience, and similar results,—all find their use in smoothing the path of future labour and securing future and more rapid success. Such a result of past efforts has frequently been noticed by missionaries of long standing, who knew, from their own hard experience, what valuable helps are now provided for the missionaries of modern days. The following testimony of the Rev. W. Fyvie of Surat, given in 1847, on his departure for America, illustrates the case so clearly, that we quote it:—

“Persons arriving at Bombay now visit it under different circumstances, from what it was twenty-five or thirty years ago. When I landed on your shores, there was only one church in Bombay, and one service on the Lord’s Day, very thinly attended indeed. There are now six places of public worship on this island for divine service in English, and a seventh is now building. Thirty or thirty-five years ago, evangelical preaching was, I fear, but little known on this island; but now the case is happily very different and has long been so. Less than thirty-five years ago, there were no Educational, Bible, Tract, or Missionary Societies here. Is not the case now very different? Then one hardly knew where to look for a decidedly pious person, for the worship of God in families, and prayer meetings in public. In how many pious families, in this place and at other stations, is the voice of prayer and praise presented to God, morning and evening, at the family altar: while weekly prayer-meetings are also numerous. In viewing all that has been done among our countrymen, have we no cause to say, ‘what hath God wrought!’

“Thirty years ago, if any native had wished to become acquainted with Christianity, there was then no Bible, Tract, or Christian book in Mahrathi or Gujurati, to put into his hand. During the last twenty-five years, however, the Bible has been translated and printed in both these languages, so that the people can now read in their own tongues the wonderful works of God. Tracts, discourses, prayers and catechisms have been prepared and widely circulated, and are read by thousands throughout the length and breadth of the land. Some of the heathen at the different missionary stations have believed the gospel-report; others, an increasing number, are convinced of the truth of Christianity, but have not yet sufficient moral courage to put on Christ, and to forsake all for his name. ~~Some~~ of the converts have become preachers

‘ of the gospel. When I arrived in India, the American brethren, Messrs. Hall and Newell, were labouring amidst many discouragements to establish their first native school. Now there are numerous schools at all the different missionary stations; and they might be greatly increased. When I arrived, with the exception of the two American brethren mentioned, there were no missionaries in the whole of Western India. Since that time, the great Lord of the harvest has thrust forth many labourers from Great Britain and Ireland, America, and the Continent of Europe. Let us bless God for this: and pray that they may be upheld, directed, comforted, sanctified, and their labours greatly blessed. No doubt, but in due time, they or their successors shall reap largely, if they faint not.”

This interesting passage will apply to the whole of India, except the Serampore mission and a few stations in the Madras Presidency, which had been established previously to the time referred to: and it will suggest to the reader one class of results, which missions have already produced. These results we shall now describe in detail.

In addition to the actual conversion of a goodly number of native Christians, missions in India, in preparing the way for far more numerous conversions hereafter, have spread a large amount of Christian knowledge throughout the country, and have produced deep impression upon the native mind, both in relation to the follies of Hinduism and the truth of the Bible. For many years missionaries have preached with steady perseverance in chapels, bazars and schools, in the neighbourhood of their stations. They have undertaken extensive preaching journeys over districts of the country seldom visited. They have distributed thousands of tracts and portions of the Word of God. They have held conversations, and not unfrequently long discussions with the disciples of Hinduism and of Muhammad in chapels and shops; by the way-side and in the thronged bazars; at the weekly markets, and in the great annual festivals. They have maintained thousands of schools, both in the vernacular and English languages; and thus have brought home the word to young and old.

After all this, is the country the same as it was fifty years ago? Far from it. The knowledge, which they have spread, has sunk among the community, and is working, like leaven, in silence but with certainty. The Hindus have learned that their system is full of errors; that the science of their Shastras is contemptible and worthless; that their idol-worship is foolish and insulting to Him, who is a SPIRIT; that the characters ascrib-

ed in the Shastras to their many gods are full of vice and crime; that those Shastras are full of inconsistencies; that their worship is unworthy of reasonable beings, and their priesthood is grasping and ignorant. They have learned in contrast, that there is but one God; that He loves the souls of the sinful, and has sent His Son to be the Saviour of the world. Many have been led to acknowledge that their system must decay, and Christianity surely triumph. Acknowledgments to this effect are made repeatedly in all parts of the country; and a conviction, more or less deep, that Christianity will destroy caste and idolatry, has entered thousands of minds. Temples are being allowed, to a great extent, to fall into decay, while the number of new ones erected is by no means large. In those parts, where missions have been carried on most extensively, a considerable falling off in the attendance at the great festivals is distinctly observable. The swinging festival, for instance, in Lower Bengal is very different from what it used to be. The number of idols sold at festivals is greatly diminished, and the offerings at the great temples are of far less value than they once were. A great change has taken place in the views and in the spirit of the people at large. Formerly they knew nothing of what true religion really is; but they have been enlightened on the nature of moral obligation, the duty of love to God, of love to men, and the nature and evil of sin. Missions have gone far, during the last fifty years, in developing a conscience amongst the natives, in whom it was in a deadly sleep. Is not this alone a great result? The Hindus, too, have begun to lay aside some of their old notions. The Brahmins are no longer so highly honoured; the clever Sudras thrust them aside from place and power without scruple; by far the greater increase of wealth and wisdom has been diffused among the latter. Thousands now approve of female education; and, in the great cities, the ladies of numerous families are being privately taught. Even the re-marriage of widows is discussed by the native papers, and its advantages fully acknowledged. A numerous body is coming forward in society, possessing far more enlightened notions than their fathers did; a body of men, who put little faith in the Shastras, and look upon the old pandits and teachers as ignorant bigots. The great contrast between these two parties shows how great a step has been made in the process of public enlightenment. The spirit, in which Bible truth is heard, has also greatly improved. Formerly, when a missionary preached, he was compelled to enter into disagreeable and apparently useless controversies; the same objections were brought forward again and again; and

the discussion was frequently closed, with the practical application of broken pots, sand, dirt and cries of 'Hari bol!' But now, in all the older missionary stations and even beyond them, discussions seldom occur. The people come to the chapels, and often listen to the end: frequently acknowledging aloud the truth of what is said. What is even more singular is, that small companies have been found in various parts of the country, who have gathered a little collection of Christian books, and meet together to read and study them. These facts are full of encouragement from the proofs they furnish, that the word of God, though hidden, is not lost; but that, like good seed, it *will* spring up and put forth, first the blade, then the ear, after that the full corn in the ear. Only let this word, so extensively known, be applied with power 'by the Holy Ghost sent down from heaven,' and, at once, 'the little one will become a thousand, and the small one a great nation.'

These facts must not, however, be reckoned of more value than they are worth. Much has been done, it is true, to enlighten the Hindus, but infinitely more yet remains. Their ears are opening to listen to the gospel, and their minds are beginning to receive it, while an awakened conscience feels its power. In the neighbourhood of many stations, it is true, that many declare that Hinduism is false and Christianity true; but very few perceive the duty, which arises from a fact so important. Truth and duty are, in their ideas, not necessarily connected. They do not yet possess the feeling that they need the physician, whose skill they acknowledge; and no where has any spirit of enquiry been aroused on an extensive scale. Missionaries have therefore to go on;—preaching and teaching still—preaching and teaching still. They can see that they are not labouring in vain, and that the word of God will not return to Him void. In confirmation of these views, we will quote the testimony of a missionary, who has laboured in Bengal for forty-five years, and mention two most extraordinary facts described in missionary reports. The Rev. W. Robinson of Dacca, after a missionary journey, says:—

This little trip has fully convinced me of one important fact; viz., that the time for *preaching* is come. Go where you will, the people will hear. It was not always so; far, far otherwise was the state of things nearly forty years ago, when Chamberlain and I were together at Cutwa. Then the people used reproachfully to ask; "What is the use of all this labour? Nobody will hear you; no one will become a Christian." Chamberlain's reply usually was; "We are throwing a little fire into the jungle—burning the jungle to prepare the land for cultivation." I think we may now boldly affirm, the jungle is burnt; the field is ready for cultivation. Our business is now to drive the gospel-plough through the length and breadth of India. But where are our labourers? Painful thoughts! We have ~~no~~ ^{few} Here are whole districts without a labourer.

The avidity, with which books are now received, is a marked feature in the present state of the Indian mission. Former periods of the mission were those of clearing and ploughing; but now the time for sowing is come. Go and preach where you will, the people will hear you; carry books wherever you please, and they will be most gladly accepted. Tell our good friends at home, that the sowing time is indeed come; and that, if they wish to reap bountifully, they must sow bountifully. We want seed to sow:—books, books in quantities almost innumerable, and we want men to sow the seed. It will be a sad blot on the churches in England, if, after the ground is thus prepared for the reception of the seed, that seed is not cast in abundantly.

The extraordinary facts, described in the following extract, took place, during a fearful outbreak of cholera in Assam, in 1847, and are described in a letter from one of the Assam missionaries:—

The ravages of this disease have been fearful among us. Some days there have been as many as eleven or twelve deaths; one hundred and ten were swept off in twenty days, which is a very great mortality for so small a station as this. During this period of distress, we have seen some striking proofs of the diminished confidence, with which many of the natives regard their own religion. Several of them, in the hour of their extremity, have been found calling upon the name of Jesus Christ. Others have spent nearly all their time in making pūjas; and the temples near us have resounded day and night with their idolatrous songs. Soon after the disease broke out, the Brahmins and others of the better class made a grand festival, and sacrificed a large number of goats, ducks, &c. At the close of their celebration, one of the Brahmins, who has been in my employ as pandit for the last two years, was called upon to make an extempore prayer to the deity, which he did in the presence of some thousands. Having a curiosity to know how a heathen would pray, I requested of him a copy of his prayer, which he readily gave me; and was not a little surprized to find how nearly he had imitated the prayers which he has, from time to time, heard among the Christians. He had not once used the name of any of their gods, but had simply addressed God as the Supreme and Eternal; in fact, if it had not been for the omission of the name of Christ, it would have been precisely such a prayer as a Christian might make. This, amongst a people like the Asamese, who consider that all religion consists in repeating the name of *Rām*—in whose Shastras it is declared again and again, that the word *Rām* is the centre and substance of all religious merit, and the only ground of salvation—appears somewhat extraordinary, and would seem to indicate that the native belief is undergoing an important change.

The last extract, we quote, is, from the Rev. G. Würth of Hubli, on the borders of the Bombay Presidency, and not far from the district of Goa:—

When travelling last year in the southern parts of the Dharwar Collocation, I met with a man, who told me that there was a Lingaite Swami, in a village called Maruli, who advised the people to throw away the Linga, which they wear on their breast, and to put no confidence in their idols, but to believe in Christ. I was very much surprized to hear this; and went one day to the village where the Swami resided. I did not, however, find him at home; but, some of his disciples telling me that the Swami would be very glad to see me, I wrote him a letter, inviting him to come and pay me a visit. He readily complied with my request, and came to the temple

where I was, followed by many of his disciples (Lingaites-priests), who carried with them a great number of books. Among these were the New Testament, Genesis, the Psalms, and the Prophets, all in Canarese. The Swami having taken his seat in the midst of his disciples, I thus addressed him: "You have, I see, many of our sacred books; you have read them; do you believe what is written in them?" He said, "Why should I keep them, if I did not believe their contents?" After I had spoken to him and his disciples about the necessity of receiving the remission of their sins through Jesus Christ, of whom all these books bear witness, and of confessing him openly before all men, the Swami said, "I believe that Jesus Christ is the son of God, and that the Holy Trinity, God the Father, and God the Son, and God the Holy Ghost, is the only true God; and, though the people call me a madman, I shall not give up this my conviction." Then taking the evidences of Christianity in Canarese, he read from it the article on the Divinity of Christ, to show me that he entirely approved of what was written there on the doctrine. He has formed a circle of disciples around him, who are to believe that of which their master is convinced. I was quite astonished to hear a Swami of the Lingaites speak in this way, who was never in close connection with a missionary. He had drawn his knowledge from Tracts, but especially from the Scriptures, which in their divine simplicity are the best teacher for every body. He did not, it seems, till now seek the remission of his sins in Christ, but rather admired the sublime truths of the Christian religion. But I entertain a good hope, that the word of God, which has led him on so far, and which is quick and powerful, and sharper than any two-edged sword, will, under the influence of the Holy Spirit, become to him, in this respect also, "a lamp unto his feet, and a light to his path."

Though missions have apparently accomplished little in most parts of India, in certain districts they have made most substantial progress. Three years ago, considerable religious enquiry was awakened in the neighbourhood of Barisal, to the east of Calcutta. A careful examination has shown, that the enquiry was, in numerous instances, sincere and well based, and is even not yet come to an end. In a short space of time, 188 natives have been admitted to the Communion of the Lord's Supper, and 1,085 individuals been brought under Christian instruction. The great anxiety of these new Christians for further instruction, their willing obedience to church discipline, their patience under much oppression, and the continual accessions to their number, furnish evidence, that the work going on among them is a really Christian work.

The religious movement in the Krishnaghur district is so well known, that we need but name it. The spirit of enquiry, in which it began, seems to have been sincere; but the famine of 1839 brought so many inferior motives into connection with it, as greatly to depreciate, if not to destroy, its usefulness. But as famines in India have, in no case but this, led to large accessions of natives to the Christian church, it must be allowed, that there was something peculiar to give it a religious direction. Be this as it may, by its means, 4,400 natives have been

RESULTS OF MISSIONARY LABOUR IN INDIA.

brought under Christian instruction. Six missionary stations have been established among them, and churches, mission-houses, and schools erected. It is allowed, even by the friends of the mission, that the state of religion is low; and that many old habits still remain among the people. But it is not all evil. One-half of the people regularly attend public worship; and one-sixth is under daily instruction in the boarding schools. Faithful labour will do much, under the Lord's blessing, towards completing the work thus begun.

In the province of Jaffna, in Ceylon, several circumstances evince the deep impression made on the population by the American mission, during the last thirty years:—not that the native Christians are very numerous; but they are intelligent and well educated. This mission has directed its efforts chiefly to education. Under the looser notions of caste prevalent in Ceylon, they have been able to instruct *heathen* boys and girls in boarding schools (a circumstance unheard of throughout North India); and, of the many hundreds trained by their Christian care, a very large proportion have made a public profession. An intense desire for education has spread through the province—for the education of females, as well as males; the whole district has been greatly enlightened; and a conviction established, that Hinduism must be destroyed. So extraordinary is the desire for knowledge now prevalent, that when certain Hindus in Jaffna established a school, in opposition to that of the missionaries, they were compelled to *introduce the Bible*, in order to keep their school open!

By far the greatest progress has been made in South India, in the provinces of Tinnevely and Travancore. Missionary work has long been carried on in these districts, and the people are far more open to the gospel than other Hindus. In Travancore there is a native Government, and the Brahmins are both numerous and powerful. But the majority of the people, both there and in Tinnevely, are not Hindus like those in Northern India. They are Shanars, a large body devoted especially to the cultivation of the palm-tree: and, whether immigrants, or a portion of the aborigines of the land, who have been enslaved by Brahmin conquerors, they still retain their original customs. They are all devil-worshippers, and worship the objects of their fear with horrible ceremonies and disgusting dances. They continually add to the number of their devils: and singularly enough in one district, *an Englishman was worshipped as such*, for many years. The offerings presented on his tomb, were *spirits and cigars*! The Shanars are said to be 'the least intellectual people found in India.' Their long servitude and oppression

have debased them to a very low level : and, though a few are found to possess considerable ability, the majority are marked by apathy, indifference, ignorance and vice, and are unable to carry out a process of thought for any length of time. Their social bonds, such as those of parents to children, are feeble; and their social amusements few. But withal they are a docile and pliant people, and decidedly willing to improve. The causes, which led to such a rapid progress of Christianity among them, are readily discernible. Their religion sat very lightly on them; their caste is low; the religion of Europeans was, of course, looked upon with favour. In Travancore a special reason existed. Many years ago, General Munro procured an order from the Rani, that Christians should be exempted from work on their sabbath, and from employment in the Hindu festivals. These circumstances have contributed much towards the easy passage of so many converts from Heathenism to Christianity. The whole number, now under instruction, we reckon to be 52,000. It must not, however, be supposed that they are all true Christians. None know this better, or have spoken it more plainly, than the missionaries, who instruct them. Yet had they only given up their abominable devil-worship, a great thing would have been accomplished. But they have done more. They have placed themselves under an evangelical ministry; they regularly attend public worship: more than 17,000 children and young people are daily instructed in Christian schools, some of whom are being educated as teachers, and others as preachers to their countrymen. Best of all, a goodly number have exhibited in their lives the fruits of conversion to God. A great improvement has taken place in this numerous body of Christian natives; a great desire is evinced for increased instruction; family prayer is not uncommon; the public services are well attended; and a large sum in the aggregate is annually contributed for Christian books and for the poor. The whole Shanar population, 120,000 in number, is open to missionaries; and, if Societies are faithful, and missionaries faithful, we may hope, in two or three generations, to see the whole of the southern provinces of India entirely Christianized.

The wonderful progress of the American missions at Moulmein and Tavoy might well be described at length, even in a short sketch like ours. They are carried on in the territories of the East India Company, and enjoy the protection of its Government. But we have omitted them altogether from our enquiry, inasmuch as the races, whose conversion they seek, are generically different from those of Hindustan, and their languages entirely of another character. We will only add that the history

of these missions from their commencement by Dr. Judson, including their apostolic success among the Karens, may well claim a notice of its own. Our American Baptist brethren have thrown nearly their whole energies into Burmah, and have reaped deserved success. We trust that they will give somewhat more of their zeal to the work of missions on the continent of Hindustan. Not only is there ample room for all the churches of Christ; but the country appeals to those churches, with the assurance that they can never sufficiently supply the labourers required. Our enterprising brethren then across the Atlantic will find in India an open field, and be welcomed heartily into it, as honoured fellow labourers.

As another fruit of their labours, missionaries are able to point to a large number of individual converts, now dead, in whom the fruits of religion were decidedly evinced. They can show, not merely thousands of Christians under instruction, and a small band of professors, but native converts distinguished from their brethren by the peculiar consistency of their lives, and the triumphant hope, which they enjoyed in death. There is no vague generality here; no mere display of numbers; no boast of thousands of nominal converts, who, on the first opportunity, relapse into their fathers' heathenism. We see the gospel received by individuals on their personal conviction of its truth. We see them adopting it willingly, professing it openly, bearing reproach for it with patience, and obeying its precepts. We see them purified by its law, strengthened by its motives, encouraged by its promises, holy in life, and happy in death. So frequent and so decided is this individuality in Indian missions, that one can scarcely open a Missionary Report without finding evidence of it. It is not confined to one Presidency only, but exists in all; and proves that the Spirit of God is at work in them all, bringing forth the same fruit in all parts of the country—fruit the same as that which the church has borne in all places and in all time. The large number of converts, whose death or conversion is recorded in the history of Indian missions, enables us the better to point out those who have been distinguished above their brethren. Many there are, whose names are known, not only in India, but in Europe. In the recently published 'Oriental Christian Biography,' we find nearly ONE HUNDRED such described. Among them, *Rajanaike*, the active and devoted catechist of Tanjore; *Abdul Massih*, Henry Martyn's convert, and a faithful missionary at Agra; *Krishna Pál* and *Pitamber Singh*, the early converts of the Serampore mission; *Hingham Misr*, the first convert at Monghyr; *Ramji*, the first convert to the south of Calcutta, and his

excellent son-in-law, *Radhanath*; *Mahendra* and *Khailas*, the first catechists of the Free Church in Calcutta; *Lakhan Das*, *Krupa Sindhu*, *Radha*, and many others, whose holy lives and happy deaths have cheered the hearts of the missionaries in Orissa; *Samuel Flavel* of Bellary, the native ordained missionary of the London Missionary Society; *Nyanamutto* of Tinnevely; *Christian Thomas* of Vizagapatam; *Mohun Dás* and *Tajkhan*, the pensioned sepoy of Chunar; *Brindabun*, the disciple of Chamberlain; *Gunganarayan Sil*; *Narapat Singh*, who gave up his property that he might be a Christian; —with many others, are conspicuous and well known. Others not so conspicuous, have enjoyed peace in death, and left to their sorrowing pastors the assured hope, that they have entered upon eternal life. A goodly number of the native converts, as we have shown, have been appointed preachers to their countrymen, and a few have been publicly ordained to the Christian ministry, in the same way as European missionaries. Many others have been appointed as readers, school teachers, and school-mistresses. Thus is the way being opened for making Christianity an indigenous religion; and, though the beginnings are but small, they must not be forgotten or passed by in ingratitude and contempt.

But the pleasing results of missionary labour, in commencing or maintaining spiritual life in the heart, have not been confined to native society. From the first, the destitute condition of our own countrymen at many stations attracted the missionaries' eye; and the fruit of their ministry among them has been seen both in the conversion of some, and the maintenance of true religion in others. *Mr. Robert Money* of Bombay; *Captain Page* of Monghyr; *Captain Paton* of Lucknow; *Mr. Robert Cathcart* of Dharwar, and *Judge Dacre* of Madras; *Donald Mitchell*, the infidel officer of Surat, and subsequently the first missionary of the Scottish Missionary Society; *Mr. Casamajor*, the friend of the Mangalore mission; *John Monckton Hay* of the Bengal Civil Service; *Mr. Cleland*, the Calcutta barrister; *Major Hovenden*, *Captain Mills*, and *Lieut. St. John*, are but specimens of those, who readily acknowledged the lasting benefit, which missionary instruction and counsel had conferred upon them. Many now living, the friends and supporters of missions, we forbear to name. Numerous soldiers in the European regiments have had no other instructors than missionaries; and great have been the benefits they have received. Missionary labour too has done a great deal towards raising the tone of European Society from its thoroughly irreligious condition at the opening of the present century, to that

which it now exhibits, after a lapse of fifty years. Then there were but few churches and ministers of the gospel : now both are numerous. In the Presidency of Bengal, for instance, there were but three chaplains, and three churches. Now there are seventy churches for the use of Europeans, occupied by more than sixty episcopal chaplains and ministers, besides those we have already mentioned under the charge of missionaries. Then the attendants on public worship were but a handful : now every station has its worshippers. Drinking and gambling have greatly decreased, and marriage is honoured. Much, very much of this is owing to the improvement of English society in England itself, which has been reflected upon this and other dependencies of the empire. But much, in all justice, must be attributed to the efforts of missionaries in the country, who, by their character, their spirit and their direct instructions, have aimed to advance the religious welfare of " their kindred according to the flesh."

Again, the LITERARY LABOURS of missionaries in India, have been by no means insignificant. Coming to a foreign land, and to nations speaking a variety of polished languages, it has been their duty to adapt their instructions to the capacities of their hearers, to address them in their own way, and construct, *ab initio*, a system of agency, that shall directly apply Christian truth to the native mind. This object they have kept steadily in view. To missionaries the languages of India owe a great deal. They found the higher range of terms appropriated by the learned, and they have given them to the common people. They found many of the languages stiff; they have made them flexible. They have brought down the high language of the Brahmin; they have elevated the *patois* of the Sudra, and thus formed a middle tongue, capable of being used with ease and elegance by the best educated classes. The Tamul and Bengali languages have, especially, been formed and established in this manner. Missionaries have compiled more DICTIONARIES and GRAMMARS of the tongues of India than any other class of men. We have Bengali grammars by Drs. Carey and Yates; Bengali dictionaries, large and small, by Dr. Carey and Mr. Pearson, with volumes of dialogues. We have a Hindui dictionary by Mr. Thomson of Delhi; a Hindui grammar and dictionary by Mr. Adam of Benares; a Bengali dictionary by Mr. Morton; an Uriya grammar and dictionary by Dr. Sutton; a Hindustani dictionary by Mr. Brice; a Hindustani grammar by Dr. Yates; and Sanskrit grammars and dictionaries by Drs. Yates and Carey. We have Tamul grammars by Ziegenbalg and Rhenius; the Malayalim dictionary and grammar by Mr. Bailey of Cottayam; a Gujurati grammar by Mr. Clarkson of Baroda; and Sing-

halese grammar by Mr. Chater of Colombo. Of other languages we are unable to speak, but doubt not that many such efforts have been made in them likewise.

Their great work, however, in this direction, has been **THE TRANSLATION OF THE BIBLE**, a work, which ranks first in importance among the agencies employed for India's conversion. Besides the numerous Serampore versions, including thirty translations of the whole, or parts of the Bible into Indian tongues—and which, however good for a beginning, and however useful in powerfully directing attention to the greatness of the object, are acknowledged to be unfit for standard use—apart from the great products of these mighty minds, we have translations of the whole Bible into the following languages, carefully revised during the last twenty years. There are versions into Hindustani or Urdu, and Hindi; into Bengali and Uriya; into Tamul and Singhalese; into Canarese and Malayalim; into Mahrati and Gujurati. We have ten versions of the entire Bible—not first attempts by scholars at a distance, but the work of ripe years, by missionaries, who were constantly in intercourse with the people for whom the versions were intended. The complete New Testament has been similarly revised, and published in five languages; viz, in Assamese, by the American missionaries; in Telugu, with much of the Old Testament, at Vizagapatam; in Tulava by the Mangalore missionaries; and in the ancient languages of India, the Sanskrit and Pali. Besides these again, we have a gospel or two published in four languages, spoken by the barbarous hill tribes; in Santal, Lepcha, Khassia, and the Tankari of Kote-ghur. Translations have also been commenced in the Punjabi. Thus are the civilized Hindus and Mussulmans of all India and Ceylon enabled to read in their own tongues the wonderful words of God, clearly and intelligibly set forth. The value of such a book who shall declare? How many years of thoughtful labour are concentrated in this small library of Bibles! How many millions of immortal minds will draw from it the streams of instruction, which shall convince the sinner, make the Christian grow in grace, comfort the sad, rebuke the backslider, warn all of hell, point all to heaven. Had missionaries done nothing else but prepare these excellent versions, incalculable good would have been effected. Apart from all good to the natives, they have lightened the labours of their successors, and given them an immediate entrance to their work, for which the first missionaries long sighed. This is an effect of past missionary labour, which it will take a long time to develop fully. As an illustration, we quote a passage from the letter of a Ceylon missionary, on lately receiving Mr. Percival's beautiful translation of the Tamul Bible:

“ For several years all the Tamul Scriptures, which I obtained, were some half-a-dozen copies of the Serampore edition of the New Testament, and one copy of the Tranquebar edition of the Old Testament by Fabricius, the printing of which was so bad as to be scarcely legible. What a pleasing contrast to that state of things does our present supply of Tamul Scriptures exhibit ! Now we have the whole of the Old and New Testaments beautifully printed and bound in one volume. We have it also in parts of almost every form and size, suitable for distribution among the people, and for the use of our numerous schools.”

The translation of the Bible constitutes but one portion of the results of missionary labour in the native languages. In all the languages above mentioned, missionaries have prepared a small library of Christian books, to explain and enforce the truths which the Bible teaches. In each of the chief languages, they have prepared from twenty to fifty tracts, suitable for Hindus and Mussulmans, exposing the errors of their systems, and urging the claims of the Bible upon their attention. A few books and tracts also have been similarly published for the instruction of native Christians. In almost all these languages we find translations of the *Pilgrim's Progress* ; the *Holy War* ; *Doddridge's Rise and Progress* ; and similar works. We have books on the Evidences of Christianity ; on the doctrines and duties of the Bible : exposures of Hinduism and Muhammadanism ; and in Tamul, an exposure of the errors of Popery. There is also a goodly collection of vernacular school books, Instructors, Readers, books of Bible history, and the like. Christian and Papist, Hindu and Mussulman, will find in every language of this land useful instruction in the gospel of Christ : and the stores of knowledge thus opened are enlarging every year. A fresh impetus has been given to these efforts only recently, by the proceedings of the Calcutta Tract Society ; the Madras Society has followed it up ; and there is every probability of two very extensive Christian libraries being rapidly formed in the Tamul and Bengali languages, containing numerous standard works thoroughly adapted to the people who use them.

There is one circumstance, which greatly contributes to the production of these native works, and in connection with which Missionary Societies have not, perhaps, received that meed of praise which is their due ; we refer to the establishment of Mission Presses. At the present time there are no less than *twenty-five* printing establishments, in connection with missionary stations in India : and it is from the facilities they furnish for producing tracts and books, as well as from the liberal donations

of the English and American Bible and Tract Societies, that missionaries have been able to publish so much for the instruction of this country. Not only directly, but indirectly, have they promoted the extension of information throughout India. This example, and that of their countrymen, engaged in the periodical press, have led the natives likewise to import presses for themselves; and at the present time, in the Presidencies of Bengal and Agra, there are no less than fifty-four presses belonging to natives, engaged in printing vernacular works or publishing newspapers and magazines. Of these, twenty-six are in Calcutta.

Missionary literature does not stop here. Indian missionaries have done much towards drawing the attention of the Christian world to the claims of Hindustan upon their sympathies and prayers. Many of our countrymen engaged in Government employ have described its scenery, its productions, its history, its resources, and the social life of the Europeans, that reside within its borders. But to missionaries are we indebted for full accounts of the religious systems professed by its people; of their religious rites, their religious errors, and their social condition; of the character of their priesthood, their caste system, their debasing idolatry, the ignorance and vice which every where prevail, and the great difficulties in the way of the people's conversion. While but three or four such works describe the religious condition of China, or of the South Sea islands, or South Africa, or the West Indies, we can name at least thirty works written about India by missionaries, or containing the lives of missionaries who have died in the country. These works embody an immense amount of information respecting the natives of India, and fully illustrate the attempts which have been made to spread Christianity among them. Neither are these of an inferior kind, nor written by inferior men. They include works by the Serampore Missionaries; by Dr. Duff, and Dr. Wilson of Bombay; the works of Messrs. Weitbrecht, Long, Wilkinson, Buyers, Leupolt and Smith on Missions in the Presidency of Bengal: those of Messrs. Peggs, Sutton and Noyes on Orissa; those of Messrs. Campbell, Hoole, Hardey and Smith on the Missions of South India; and the admirable work of Mr. Arthur, published not long since. They include the Memoirs of Carey, Schwartz, and Rhenius, the 'Sketches' of Mr. Fox, and the 'Journals' of Henry Martyn. Shall we pause to describe the usefulness of these valuable contributions to the missionary literature of our missionary age?

Missionaries also maintain several English periodicals, des-

criptive of their work and its details. Of these two monthly periodicals, and one quarterly, are published at Madras ; two at Bombay ; and four in Calcutta. These have been most useful in recording the difficulties and encouragements of Indian missionary life, in developing the experience of friends, and meeting the calumnies of opponents. Two of them have existed twenty years, and contain a vast accumulation of useful information.

In connection with this subject, we must in justice refer to the speeches and writings of Indian missionaries, when in Europe, and to the good they have done in placing before the Church the claims of missions in their proper light. Missionaries, when they return to their native country even on account of sickness, do not eat the bread of idleness. It is a well known fact that they are extensively engaged in travelling among the churches, imparting information, making appeals, fostering the missionary spirit, and as eye-witnesses relating its results. To such journeys the churches owe a great deal of what they know concerning the heathen world. Many a Christian mother learns from a missionary's appeal to devote her sons to the good cause ; and many a youth receives those impressions, which end in his own consecration to the salvation of the heathen. All the churches are enlightened, and the zeal, the liberality, the prayerfulness, of all are called forth afresh. England, Scotland, Germany and America have all benefitted in this way by the reports of the men, whom they themselves had sent to the eastern world.

Let these literary agencies and literary products of missionary labour in India be taken in connection with other efforts in other departments of their work—and it will at once appear that great things have been accomplished and great hindrances removed. Demands are now speedily met, and wants readily supplied. How differently situated therefore is missionary work now from what it was at the commencement of the present century. When a missionary lands for the first time in this country, he no longer finds himself in the destitute circumstances, which awaited his first predecessors. There are books at his command to inform him of the country and the people, to whom he has come, to describe their superstitions, and shew him how to meet them. He finds grammars, dictionaries, and vocabularies to aid him in studying the native languages. He finds, in many places, Hindu students in missionary institutions able at once to receive his Christian instructions, though delivered in his own language. He finds native chapels erected wherein he may preach ; and finds the people

prepared in spirit to understand his message ; he finds school-houses built, scholars gathered, and school-books, suited to his scholars, waiting for him ; he finds Christian tracts and translations of the Bible ready for distribution. His theological nomenclature is already settled, and he has only to learn it as fast as he can. He finds small societies of Christians already gathered, in which his halting efforts in the vernacular may be commenced, and to which converts may be introduced. He finds that a vast amount of secular work, in building houses, churches and schools, has been completed ; all the elements of an efficient agency have been prepared ; an agency suited to the country in every way, in language, and in thoughts, embodying the knowledge and experience of many men, who spent years of toil in acquiring them. The more this matter is studied, the more highly shall we value the past labours of Indian missionaries. If human agency must be employed ; and if efficiency in the agency is conducive to the speedy attainment of the contemplated results ; then it must be allowed that, in their literary and other labours, apart from actual conversions, missionaries have already completed much toward the object of their efforts, the regeneration of Hindustan. " Other men have laboured, and we are entering into their labours." We have been sent to reap ; let us remember those that sowed.

Missionaries, and the religious public, which supports them, have, during the past fifty years, exerted a great influence upon the Government, by inducing it to remove some of the most glaring abominations current throughout India. Dr. John of Tranquebar and Sir Fowell Buxton were the first, who brought before the Government of India and the British Parliament respectively, the dreadful practice of *Suttee*. Under the orders of Lord William Bentinck, that great Indian Governor, the *Suttee* disappeared ; and, when he left the country, the noble Lord declared that nothing in the course of his administration gave him so much pleasure in the review, as did the removal of that great evil. *Infanticide*, too, especially in Western India, has been greatly checked, although not perfectly exterminated. The *Human Sacrifices*, systematically offered in Goomsur, have been forbidden, and an agency has been established to save the unhappy victims, the Meriahs, by removing them from the district. *Thuggee* has been almost entirely put down, and an institution established at Jubbulpore for training the families of Thugs to various useful employments. *Slavery* has been abolished throughout the Company's territories ; though it still exists to a lamentable extent in Travancore. Some of the bonds which connected the Government with idolatry have been sever-

ed. And lastly, by the celebrated Act of last year, it has been declared, that all natives of India are free to hold their own conscientious opinions in religion, without fear of legal penalties. These improvements have been effected within the last twenty-five years ; and the result of the efforts made to secure them cannot but encourage those who strive to see other great evils checked, such as the Charak puja, Ghat murders, and the support of idolatry by the Government itself. To these subjects, over and over again, the attention of the Government and of the public has been called by missionaries ; and the direct and indirect effects of their disinterested advocacy of the claims of humanity cannot be too highly estimated.

These brief statements contain ample proof that missionary labour in Hindustan has been anything but unsuccessful. If the small number of native professors do not inspire entire confidence, or fall short of the high expectations, which some had formed, on a survey of the amount of labour bestowed on the country, we think that a wider view of the results of missions, in not only converting a few, but in consolidating a powerful and widely-spread agency, must tend to excite the strongest hope in relation to the future. In the increased attention directed to India by the churches of Europe and America ; in the large number of missionaries located throughout its great districts and in its most influential towns ; in the complete establishment of many stations, including the erection of buildings wherein all varieties of labour are pursued ; in the numerous and useful translations of the Bible or New Testament : in the formation of a Christian library, suitable both for the conversion of Hindus and the enlightenment of converts ; in the successful study of the native languages and the formation of aids for future students ; in the faithful description of the superstitions and social evils prevailing throughout the country ; in the record of a long and tried experience ; in the extensive improvement of European society ; in the removal of enormous evils from among the native community, and the public exhibition of the *fact*, that some parts of Hinduism are too monstrous to be allowed, and must be put down by law ; in the securing of liberty of conscience for all ; in the gathering of a native church, some of whose members have been distinguished by their Christian consistency and fidelity to the gospel ; in the substantial progress made in certain provinces of our Indian empire ; and in the deep and wide impression made upon native society by Christian truth, the loosening of the bonds of caste, the extension of knowledge and the enlightening of a seared con-

science;—in all these important results, we think that great things have been accomplished by our Indian missions, and that we have the most ample encouragement to carry out what we have begun. “Thanks be unto God, who always causeth us to triumph!”

It should be remembered, that these results have not been secured without great efforts, without great difficulties, without many trials. Difficulties meet the gospel everywhere—difficulties arising from the sinfulness of the hearer, and from the human weakness of the preacher, in every country of the globe. But in India, there are special hindrances, and trials with special peculiarities, which help to retard the efficiency of the preacher, and the entrance of the word into the hearer's heart. These difficulties are not connected with physical privations: even the heat, which is so trying to health and patience, is borne by missionaries, in common with thousands of their countrymen with aims far inferior to theirs. They arise from the great power of the superstitions of the country, of the ancient Shastras, of Brahminical rule and Sudra servitude; from the iron system of caste and family connection; from the ignorance of the people; from their great apathy and utter indifference to the subject of true religion; from their constant levity respecting sacred things; from their subtlety and cunning; from their total want of moral courage: and from their dependence upon others. The native churches add to these trials. Their small numbers; their imperfect character; their frequent faults; their want of earnest zeal; their dependence on their teachers; all try the faith and patience of the missionary, and hinder the swift progress of the gospel among the heathen. The worldliness and irreligion of Europeans also increase these difficulties. In past days, much more than at present, the immoral lives, the injustice, and the corruption of Europeans, ~~set~~ a great stumbling-block in the way of many well inclined to the gospel; and the evil, though much diminished, still exists. Again, with one or two honourable exceptions, we believe, the whole political press of India is either indifferent to missionary labour, or downright hostile to it. If occasionally a few encomiums appear upon the missionary character in general—encomiums which are intended to propitiate that powerful body, but are valued at just their proper worth—at other times gross mis-statements and mis-representations of their work are admitted without a word of comment; or principles are advocated, which cut away the very foundation on which missions rest, and declare them to be chimerical and vain. Happily the mis-

sionary body has a press of its own, and contains some of the best writers in India. But surely a class of men, who, with all their deficiencies, have come to India solely for its good, and are spending £187,000 a year within the country for that end, may justly claim a better treatment than some have given them.

One difficulty in the way of their labours deserves special mention, both from its importance and extent; we mean the *support of idolatry* by the Government. There was a time when, through the extensive preaching of the gospel by the Tranquebar and Tanjore missionaries and other causes, the temples in the Madras Presidency began to be deserted and perceptibly to fall into decay. Then it was that the Government of Madras took them under its own protection, appointed the officiating priests, received the offerings, disbursed the expenses, publicly presented gifts, and restored new vigour to the dying system! Voluntarily, deliberately and knowingly the Government of Madras made itself trustee of the pagoda lands, for the perpetuation of that debasing idolatry, which the God of Heaven has determined to overthrow. In times of drought, the 'Collector' ordered the Brahmins to pray to the Gods for rain, and paid money for their expenses. European officers joined in salutes to the idols. Some, of their own accord, would make their obeisance: and others would ride in front of the cars, shouting with the multitude, 'Hari Bol!' Villagers were summoned to draw the cars by order of the Collector, and were whipped by the native officials, if they refused. The temples were kept in repair by the Government; and the illuminations at the festivals were paid for from the treasury.

The same guilty course was adopted at the other Presidencies. In Ceylon, all the Chief Buddhist priests were appointed by Government; and expenses for '*devil dancing*,' continued at Kandy for seven days, were paid, as per voucher, 'FOR HER MAJESTY'S SERVICE!' Again the Government of India, by one of its Regulations in 1810, recognises Hindu and Mussulman endowments as pious and charitable uses; places the superintendence of them in the hands of Christian officers, instead of leaving them, like all other trusts, solely to the parties interested; and, by this regulation and by the practices we have described, has established the closest connection between themselves and the shrines of abominable idolatry. These are a few facts, illustrative of the Government connection with Hinduism: we are acquainted with many more, but find it impossible, in this sketch, to enter into detail. We will add only another fact on the subject of Muhammadanism.

We hear much from England of the endowment of Maynooth by the British legislature ; yet that legislature consists partly of Romanists, and the fact of the endowment, though matter of sorrow, cannot altogether be viewed with surprise. But what shall be said of the Indian Government, calling itself Christian, and supporting a large church establishment, while at the same time, it supports the CALCUTTA MADRISSA—a College for the education of Muhammadans in their own creed ? The privileges denied to the Bible, which is repudiated as a class-book from the Government schools, are allowed to the Koran ; and that false and fanatical system is patronized, and its zealous proselyting priests are trained, by our Christian rulers ! The late Mr. Bethune, we believe, wished to change this system, and to make the college the means of conveying sound knowledge to the scholars. We fear, however, his purpose is not likely to be soon carried into effect. So long as the present system continues, shall we have obvious reason for finding fault with the position of the Government in relation to the false religions of India.

There are some, who make excuses for this open violation of the law of God, who can find reasons for delaying the entire severance of the East India Company from this plague spot. But we are sure that every right-minded man, who looks at the simple fact of a Christian Government's lending the prestige of its name to the cause of Hinduism or of the false prophet, must condemn it as a crime. That the religious people of England so regard it has been shown in many ways. Their numerous remonstrances with the Court of Directors ; their numerous petitions to Parliament ; the declared assent of Her Majesty's ministers ; and the stringent despatches of the Directors themselves, all agree in affirming that the Government connection with idolatry is a thing which *must* be put a stop to. Some features of the case have already been corrected : the Government of India has not been wholly averse to diminish the evils, which it still cherishes. The pilgrim taxes at Allahabad and Gaya have long been abolished, and the temples given back to the Brahmins. Oaths, in the name of Hindu idols, have been abolished. The attendance of European officers on idolatrous ceremonies has, at last, been dispensed with, and salutes in honour of the idols have ceased. The colonial office has given up the tooth of Budh, and determined "to separate the British Government from all active participation in the practices of heathen worship." The Court of Directors, in 1847, gave stringent orders, that the guardianship of the temples and mosques in the North West Provinces, and

the contributions paid to them, amounting to Rs. 1,10,000, should cease. But a great deal yet remains to be done. The temple of Jaganath still receives its Rs. 23,000 annually : and, to this day, the Residents at Nagpore and Baroda, the representatives of the Government, take a share in the heathen festivals. In the Madras Presidency, the evil continues to a fearful extent. Down to 1841, more than £400,000 a year passed through the hands of the Madras Government, in connection with heathen temples ; and the annual profit was £17,000. Even after the receipt of the orders of the Court in 1841, Mr. Chamier, the secretary, in communicating these orders to the Board of Revenue, and informing them, that the withdrawal from the management of the pagodas is to be 'final and complete,' writes thus : "It is not, however, the desire of Government, that the revenue officers should relinquish the management of lands attached to religious institutions, which have been assumed for the purpose of securing the public revenue, or in order that protection may be furnished to the ryots.....*There is no intention of withholding any authorized and customary payments and allowances.*" To this day, therefore, the donations continue. To this day, the temple priests, the dancing women, and the idols' clothes are paid for by our rulers ! With such orders from the Local Government, to *explain* the views of the Court of Directors, we can easily understand the following statement, in Sir Herbert Maddock's Minute in 1844, on the grant to Jagannath :*

"The temple of Jaganath is only ONE of INNUMERABLE HINDU TEMPLES *the establishments and worship of which are partly maintained by money payments from the public treasury* : and it cannot be proposed to commute all these payments in a similar manner (i. e., by an assignment on the land revenue), though there is no other reason for making Jaganath an exception, than such as arises from its greater celebrity and from the notoriety of the Government's late connexion with its management."

It must not be concealed that the complete truth on this important subject remains to be known by the public. We fear that even the Court of Directors themselves, are not thoroughly acquainted with the extent, to which they endow, or take in charge, the shrines of false religions. We require therefore, first of all, a most thorough enquiry into the expenditure, in every zillah of our Indian Empire, on account of mosques, temple and priests, and shall never be content until it is made. The

* In the Parliamentary Blue Book.

mere statement of the bare truth will, we are sure, both astonish the Government and lead to a sweeping reform.

Apart from these definite results, obtained amid many difficulties, the missionary agents of the past fifty years in India have (as already stated) acquired a store of experience, calculated to render their future operations more efficient and more successful. Even their failures and mistakes have not been in vain : and the experiments made have only tended to develop more clearly the character of the field they occupy. We purpose merely to mention one or two of the more important lessons, which experience has taught : though we should like to see the whole matter thoroughly examined by those, who have made themselves acquainted with the history of Indian missions.

1. Experience has shown that in endeavouring to meet a system like Hinduism, the church of Christ may profitably employ a variety of plans. Amid the peculiarities of Hindu Society, the preacher of the gospel has to reach rich and poor, young and old, male and female, Brahmin and Sudra, learned and rude : he has to set right all who have been led wrong. By preaching in the native languages he may reach the lower classes of the adult population : by good schools, both in English and the vernacular, he may reach the upper classes through their sons ; where circumstances allow, he may establish schools for respectable girls, as well as boys. All will profit by translations of the Bible : all will profit by Christian books. And so long as preachers are few, while the greater part of their labour is spent on a special locality, a portion of it may be applied by itinerancy to the general district around. The missionary's object is one : his plans may be many. We think that those therefore err, who would confine all labours to a fixed routine, to be applied in all places and among all classes. Experience has proved the value of all the plans hitherto employed. All have been blessed, both to the conversion of individuals, and the general spread of Christian truth. We may specially observe that the new system of English education, which long suffered so much obloquy, has been proved to be a valuable agent in carrying out missionary ends in a sphere peculiar to itself. Our plans are not antagonists : they are co-agents. "We saw one casting out devils," said the disciples, "and we forbade him, because he followeth not with us." But the master replied, "Forbid him not : for he that is not against us is on our part." It is only required that every plan should be wisely applied to the persons and the places, for which it is suited. That is the very condition of its success.

2. Experience has shown that in the present paucity of

labourers, the large cities and towns of Hindustan are the best mission stations. The same fact has been true in all ages. Great cities contain the most active and intelligent portion of a people, while agriculture has almost always been associated with ignorance and sloth. It is cities that rule the world : and through cities is the world to be converted. It was so in the beginning of the gospel. Antioch, Ephesus, Philippi, Thessalonica, Athens and Corinth were the cities, in which Paul opened his commission. Jerusalem and Cæsarea had their churches : so also had Rome and Alexandria. It was while Paul tarried at Ephesus 'for the space of two years,' that 'all they which dwelt in (Roman) Asia, heard the word of the Lord.' It was from the church of Thessalonica, too, that the word of the Lord 'sounded out in Macedonia and Achaia.' The word *pagani* 'villagers,' came at length to denote 'heathen,' because, among the villagers the idol system lingered last. It was the same during the Reformation, and is true in India. In those districts where the deepest impression has been made, that impression has been produced through the medium of the towns. Towns give the largest audiences and the most intelligent scholars. If we would lay a good foundation for the conversion of all India, the great cities must be occupied ; and every available plan set to work therein, systematically and steadily for the end in view. Missions to the hill tribes are greatly in favour with some Christians. They argue that as the hill tribes have no caste and no antiquated religious system, they are the more likely to receive the gospel freely and at once. True : but the hill tribes have no more influence upon India generally than the South Sea islanders. When you have converted them all, you have not gained one step towards the overthrow of Hinduism. Their individual souls are precious, and missions among them must do good. But we want more than this. We want to make every individual conversion tell on the country at large : but that must be among the Hindus or Mussulmans, who constitute the great bulk of the ruling population. The stir that is made in Calcutta or Madras, when a few Brahmins become converts, shews how deadlly the blow struck at Hinduism is felt to be.

3. Every mission in order to be efficient, in the way we have described, should contain a plurality of labourers. The scattering of missionaries, in isolated spots, has done great injury in past days. Missions need to be concentrated in well chosen localities. It may seem that more is effected when three missionaries occupy three single stations, than when they act conjointly in one. But experience has proved the contrary. Apart from

the advantage of mutual counsel and companionship, the very combination of efforts gives new power. The sickness and death of single-handed missionaries has frequently interrupted operations in a particular station ; and, in many cases, caused the station to be altogether abandoned. More than *forty* stations have been thus given up at various times ; and almost all the labour and expense bestowed upon them has been thrown away. We need point to only one or two recent instances. Delhi, after having been occupied for twenty-five years, has, since the death of Mr. Thompson, been entirely given up. The Baptist missions at Allahabad and Patna have also been closed after many years of labour. Midnapore has been occupied by single missionaries three times, and three times been abandoned. Kurnal, Mirut, Bareilly, and other stations, were long since given up by the Church Missionary Society ; and only Mirut has been re-occupied. Many other cases might be cited in South India. The principle of Dr. Chalmers's *local system* is peculiarly needed in Hindustan. It is ; that to accomplish a great work, we should *commence, on a small scale, in a sphere that is perfectly under our control ;* that we should labour there, *till it is accomplished ;* and *push outwards, as our strength increases.* Better a few mission stations, efficient and steadily maintained, than many imperfectly carried on for years, and finally given up. It seems to us, that all chief stations should have three or more missionaries, and never less than two. Rarely will it occur that there are too many missionaries in one place. So great is the work to be done, that none can be considered supernumerary.

4. Provided with such complete materials for an efficient agency, missionaries, we think, with few exceptions, ought now to give their whole care to the direct work before them. The preparation of agency, however efficient, is but indirect labour, after all. The translation of the Bible and the publication of Christian tracts are only means to an end. They only furnish facilities for getting at the native mind and for making upon it a lasting impression. That impression remains to be made. When the best translation has been prepared, it must still be circulated. When the best school-books have been written, they must be explained. When the best tracts have been published, they must find readers, ere they serve the end for which they have been composed.

This explanation, this direct *application* of truth to the mind, is the work of the preacher and teacher of the young ; and, however excellent be the agents who prepare these materials, the latter class are essentially needed to complete the work of the for-

mer. During the present century, an immense amount of labour has been spent on the indirect branches of missionary work : and though, with the increase of inferior aids, more labour has been expended on its direct branches, yet that labour is neither so complete, nor so decided, as to render a word of caution respecting it unnecessary. It seems to us, that the external facilities to missionary labour are so great, the literary aids so numerous and efficient, the native mind so impressed, as to call for the most strenuous exertions in applying divine truth directly to the hearts of the Hindus. The time, we think, is come, when missionaries should give their best energies, their best men, and the largest amount of their efforts, to the two great works of preaching to the old and teaching the young. These are not the easiest branches of their labour, but they constitute the end, for which others are carried on. We wish that all missionaries, with the exception of a few, peculiarly fitted to amend our Christian literature, should give themselves to the word of God and prayer. Young missionaries, especially, may well endeavour to learn the native languages at once ; and preach and get experience in native modes of thought. Thus they will be well fitted, after a few years, to employ leisure hours from more active labour in adding to the existing agency or amending its defects. Their efforts will be of the most useful kind, never dissipated nor ill-applied. This will be the best use of their predecessors' hard earned experience, and will save them from the disappointments which they had to bear. This is the true influence of the division of labour in science, or in commerce : and the law holds good, when applied to missions. But, though the principle is obvious, it has not always been acted on. Rhenius declares, that he began to edit a new edition of the Tamul Bible, before he had been in Madras *one year-and-a-half* ! Other missionaries have confessed to similar folly, and warned their successors against it. May they be wise in time, and, whether old or young, endeavour to *use up* the materials, provided for their use, in facilitating that intercourse with the heathen, which is their primary object in coming to this land.

The principle, which we advocate, will apply to the subjects of missionaries' preaching, as well as to their plans. Now that the contentious spirit of their hearers has been silenced, they need to be instructed. Now that they have learned so much of the follies of Hinduism, they need to be told more fully the truths of the gospel. If they doubt about their false gods, how earnestly should they be pointed to the only true Saviour. Has not the time come in many localities, when missionaries should endeavour to direct their hearers more thoroughly

and more constantly to the Lamb of God, that taketh away the sins of the world? They have long required to have their eyes opened to the follies of idolatry, the character of their Gods, and the inconsistencies of their Shastras. The circumstances of the case compelled missionaries to point out these evils at length, and to hold discussions with their hearers concerning them. Now let us lift the Cross higher; let us preach Jesus, the only physician, the only refuge for a dying world: and let us *live* him more fully; believing that the deepest piety is, in every church, both the means and the guarantee of the widest usefulness.

5. Another lesson of experience bears on the character of the men, most suited to be Indian missionaries. In some countries, artisans have been found exceedingly useful in instructing converts, and in making missions self-supporting. India, however, is not the country for such labourers. Two experiments, at least, have been made on a considerable scale, with self-supporting agents, and have completely failed. The country, the climate, the state of Hindu society, and the low rate of wages, are all opposed to the success of this scheme, as a remunerative one. India wants missionaries, whose whole time and energy shall be spent on their direct work as preachers of the gospel. The money, needed for their support, can be far better produced in Europe, or contributed by Christians here, than made in the country itself. An attentive consideration of the peculiar difficulties placed in the way of Indian missions; of the duties to be discharged, and the circumstances under which they must be carried on; of the acquaintance that must be made with the language, the manners and notions of the people, with their religion in all its ramifications, and with the subtle objections they make to Christian truth; of the peculiar trials to which missionaries are subjected and of the faith, patience and prudence, needed to meet them;—will clearly show the distinctive features of that character, which is best suited to the effective prosecution of Indian missionary work. To meet the climate safely, a missionary should possess a sound constitution. To meet the people and their circumstances, we require men of intelligence and education, men able to master languages and, by largeness of mind, to appreciate modes of thinking different from their own. In regard to the spiritual deadness of the land, we need men of well-established piety, of tried patience, and firm faith. In regard to the weakness of the native churches, and their want of bright examples of Christian conduct, we need men, who, by their superior character, will mould their people, and stamp

them with a high order of excellence. We have no common country to deal with, no common people, and no common religion. In India, therefore, the highest scholarship and the deepest piety will find ample scope for all that they can accomplish.

6. Experience has taught economy, both respecting missionary life and missionary funds. It has taught how, by care and watchfulness, by airy houses, light dress, and avoiding exposure, missionary life and health may, under great disadvantages, be greatly preserved. The climate tries them greatly, as it does all Europeans. The scorching days and sleepless nights encourage peculiar and deadly diseases. But it is the mental anxiety—the round of pressing labour which allows no sabbath rest—that tell most on missionary strength. Yet, even with these disadvantages, their general health has decidedly improved. The number of missionaries, who die or remove annually from the country, is not so large in proportion as it used to be. We have already shewn that the average duration of missionary life and labour in India amounts to *nearly seventeen years*, and is decidedly on the increase.

Our expenditure also has been economized. Missionaries have shared, with their countrymen, in the reduced value of European goods, and their printing presses, especially, are able to work cheaper now than formerly. In general, European and American Societies furnish the salaries of missionaries and catechists; other expenses are provided from local funds. We must, however, mention here (and we wish that the fact could reach the proper parties) that some Societies sustain their missionaries on a starvation-allowance. Numerous missionaries in India receive *less than a hundred and fifty rupees* a month; and some, little more than *one hundred*. This is economy at the wrong end, for it reduces the efficiency of those, who must actually perform the labour. But none can say that missionary funds are extravagantly expended in any way. We have already pointed out, that the whole agency of India and Ceylon, including the support of four hundred and three missionaries, and the instruction of one hundred and thirteen thousand children, costs only £187,000 per annum. Of this sum, the cost of all the agency in the Presidencies of Bengal and Agra, including the support of one hundred and fifty-nine missionaries, amounts to £68,000. This latter sum is not quite equal to two items only of the Government expenditure; viz., the salary of the Governor General (£24,000) and his travelling expenses, (£45,000).

7. We might mention other lessons, taught by hard-earned

experience—all calculated to increase the usefulness of our great work in India : but we must leave them unsaid. We cannot refrain, however, from uttering a single word in relation to efforts among the heathen. In some stations, pastoral work begins to occupy so much attention as to draw off the attention of missionaries from the idolators at their doors. But this should not be. The missionary work must still maintain its aggressive character. Even Tinnevely, Travancore, and Krishnaghur should be occupied, only upon the plan of Dr. Chalmers above referred to. They should be made centres of Christian influence, whence the gospel may spread farther and more effectually. From them both missionaries and catechists may itinerate in favourable seasons : and the Hindus be brought still under the invitations of the gospel. The variety in his work will be a benefit to the missionary ; and new converts will be brought into the church.

Have Indian missions then been a failure ? Irreligion and fear prophesied in former days that they would be. They prophesied that the Hindus would never be converted, and that the attempt to Christianize them would lead to rebellion. Such notions have long been exploded. Looking at the number of actual converts and the still larger numbers under regular Christian instruction ; looking to the character of many, who have died in the faith of the gospel ; looking to the vast amount of efficient agency now at work ; looking to the deep and wide impression made upon the native mind at large ; looking to the improvement in European Society : looking to the removal of several of the most striking evils once prevalent in the land ; looking to the large and valuable experience acquired by past labours, and to the preparation made by those labours for future success ;—we must allow that missions have accomplished MUCH, during the short period in which they have been efficiently carried on. “ The Lord hath done great things for us, whereof we are glad.” The camp has been planted and the position of the Christian army made good. The battle has begun ; and the various bodies of troops have had their several positions assigned to them. The translators, with their heavy batteries of Bible truth : the tract writers, with their light field guns ; the active cavalry of itinerators ; the preaching battalions of foot ; and the little band of Christian sepoys, are all engaged in subduing this vast continent, to ‘ the obedience of Christ.’ If the work be carried on, what *must* be the end ? “ The LORD gave the word ; great is the company of the preachers.” Shall not ‘ kings of armics flee apace ; while they that tarry at home, divide the spoil’ and share the joy of victory ?

Every thing calls upon the churches of Christ, both in Europe and America, to complete what they have begun. The claims of India upon their sympathies, efforts and prayers, are becoming stronger every day : and, the more they are appreciated, the more will our great missionary work be prosecuted with earnestness and vigour. In support of those claims, we may appeal to the vast population, which India contains, reckoned as at least one hundred and thirty millions, and by some, as two hundred millions. We may appeal to the vast extent of this great continent, its many nations, and its resources for promoting human comfort. We may appeal to its great influence in Asia in general, and to the fact, that as it spread its Buddhism over China, Thibet and Burmah, it must, as a Christian country, be mainly instrumental in bringing those and other countries, under the power of the gospel. We may appeal to the Providence of God, which has made the whole country accessible in the fullest degree to missionary labour, under the security and protection afforded by the English Government :— a fact, which, contrasted with the position of China, Madagascar, Persia, Tahiti, and even Kaffirland, must shew the immeasurable superiority of the advantages we possess. We may appeal to the debt, which England owes to India, for the commerce it has originated, the support it gives to thousands of our countrymen, and the profits of its merchandise ; to an annual gain reckoned at eight millions sterling in value ; and to the political consequence attached to the Indian empire. We may appeal to the many and powerful religious systems of the country ; to its Hinduism, Muhammadanism and Buddhism : to its ancient Shastras and powerful priesthood ; its system of caste, and the degradation of its women. We may appeal to the labour already spent, and to the success with which it has been followed. Some of these motives exist only in India. What other country has them all combined ? Separately they are unanswerable : united, who can resist them ? But *one* Macedonian called upon Paul to bring the gospel across the Hellespont. Millions of men appeal to *our* sympathies, and with far greater earnestness and with far deeper reason, cry “ Come over and help us.”

The present missionary force in India is utterly insufficient, for the completion of the grand object in our view. New efforts therefore in Europe and America ; new efforts in England, Scotland and Ireland ; new sacrifices, new gifts, new self-denial, alone will avail to secure the men and the money, which our agency requires. It is true that missionaries in India are many in one sense. They constitute nearly one-third of the entire missionary body throughout the world. They are many, as

compared with none : but as regards sufficiency, their numbers are quite inadequate. Neither are they many, as regards the proportion of labourers to the people to be evangelized. The Sandwich Islands, with 80,000 inhabitants, have thirty-one missionaries. The Navigator's Islands, with a population of 160,000, have fifteen missionaries to instruct them. New Zealand, with 100,000, has forty. The population of the South Sea Islands under instruction is 800,000, and is taught by 120 missionaries. In the West Indies, there are not less than *three hundred and fifty* missionaries to instruct a population of *two millions and a half*. More than seventy missionaries are crowded into the 'Five ports' of China and the Island of Hong Kong. But in India, for 130 (or as some say 200) millions of people, we have but four hundred and three missionaries. Whole provinces, and large towns with thousands of inhabitants, are wholly uninstructed. In Bengal and Behar it has been reckoned that eighteen millions never hear the gospel. Within fifty miles of Calcutta, there are towns and villages with 30,000, 20,000, and 10,000 inhabitants, that never saw a missionary till the present year ; and were so unknown, that no map accurately described their position and size. Delhi, with 150,000 people, much more populous than New Zealand, has no missionary at all. Midnapore, with 70,000, has none. Azimghur, Bareilly, Purnea, Mymensing, and hundreds of other important towns and districts, have none at all. Excepting two missionaries at Lahore, and one in Sindh, the Punjab, Sindh, the Bhawalpore states, all Rajputana, all Oudh, Bundelkhund, the Nerbudda valley, and the great state of Hyderabad, have no missionaries whatever. Even Agra, the chief seat of the North West Provinces, has but eight missionaries, of whom one is absent ; and Benares, the 'holy city,' with a permanent population of 300,000, has but eleven. The two towns of Saugor and Dacca alone, contain a population *equal to that of all the Malay-peopled Islands of the South Seas* put together. In those islands *one hundred and twenty* missionaries are labouring ; while in the former two cities, there are but *five* ! In the whole Presidency of Agra, containing numerous large towns, and peopled with the finest races in India, there are only *as many missionaries* (57), *as are engaged in the small Negro settlements on the West Coast of Africa*. These things are seen in India ; in India, under an English Government ; in India, opened to the gospel ; in India, white to the harvest. Has the church given to it its proper share of agency ? Grand efforts are made to open doors that are closed ; while doors wide open are neglected ! Oh ! for more of the

spirit of Him, who 'had compassion upon the multitudes, when He saw them as sheep without a shepherd.'

This is not the time for the church to withdraw from its appointed duty in evangelizing this great land. During the past ten years, the Providence of God has, in a remarkable way, been calling the attention of the whole world to its interests, and to strange events of which it has been the scene. During the past ten years, the Chinese war has opened a way to the gospel, in the celestial empire : and to the success of that war Indian troops and Indian steamers contributed not a little. Within ten years, the awful Affghan war with its massacres, and captivity, and deeds of prowess ; the war with Gwalior ; the conquest of Sindh ; the two wars in the Punjab, with their murderous battles and final conquest, have directed all eyes hither. And that attention, excited by strange catastrophes and striking occurrences, has been retained. Within ten years, two lines of steamers have been established through the Red Sea and Mediterranean, and have maintained a rapid and constant intercourse between England and India : a new line, it is confidently hoped, will ere long be added, and the present means of intercourse be increased and improved. Communication is improving also within the continent itself. Numerous steamers now ply along the Ganges, and have begun to navigate the Indus. Our railroad is fairly commenced : our postage rules are about to be modified : an immense number of native newspapers have been called into existence ; and the English language has made a giant stride among the young, in the province of Bengal. Within the last year, a regular intercourse has been opened with China by monthly steamers. California and its cities have created new wants and new commerce ; and numerous ships have found their way hither from that newly settled territory. New ties are connecting India with the Australian colonies. The Great Exhibition has shown, upon a large scale, what India contains, and what its nations can produce. In the east and west, its voice is being heard. It is claiming an important position in the public eye, and men are beginning to acknowledge the justice of our appeals in its behalf. It is no time then for the church of Christ to forget it ; to forget that it is open to the gospel ; to forget that the contest between truth and error can be carried on upon fair terms ; or to forget that the hand of God has directed his people hither. As if to compel a greater attention on the parts of religious men, that Providence, which has opened the way to India, has been closing up other fields. Within ten years, missionaries have been driven from Siberia : the Madagascar missions have been

broken up; Tahiti has been left a wreck; the Sandwich Islands have been threatened; cholera has decimated the West Indies; and the Kaffir missions have been twice destroyed. Have these things no meaning? Has that Almighty Spirit, who 'suffered not' his servant to go into Bithynia, and 'forbade him to preach the word in Asia,' no object, in thus closing some doors of usefulness, while the largest of all remains wide open? We trust that these indications of his purpose will be met by the hearty response of a willing church. We trust that, with the increase of communication with Europe, the churches of both Europe and America will put forth new exertions and devise new schemes for extending missions in our Indian Empire. May he be with them, who said to his people in ancient days: "I will send mine Angel before you, and he shall drive out the Hittite and Amorite from the land." May He fulfil his promise speedily; "The gods, which have not made the heavens and the earth, even they shall perish from the earth and from under these heavens." We conclude this brief review in the words of the Bishop of Calcutta:

"What can exceed the inviting prospect which India presents? The fields white for the harvest and awaiting the hand of the reaper! Nations bursting the intellectual sleep of thirty centuries! Superstitions no longer in the giant strength of youth, but doting to their fall! Britain placed at the head of the most extensive empire ever consigned to a western sceptre: that is, the only great power of Europe, professing the Protestant faith, entrusted with the thronging nations of Asia, whom she alone could teach! A paternal government, employing every year of tranquillity in elevating and blessing the people, unexpectedly thrown upon its protection! No devastating plague, as in Egypt; no intestine wars; no despotic heathen or Muhammadan dominion prowling for its prey. But legislation going forth with her laws; science lighting her lamp; education scattering the seeds of knowledge: commerce widening her means of intercourse: the British power ever ready to throw her ægis around the pious and discreet missionary.

"Oh! where are the first propagators and professors of Christianity? Where are our martyrs and reformers? Where are the ingenuous, devoted, pious sons of our Universities? Where are our younger devoted clergy? Are they studying their ease? Are they resolved on a ministry tame, ordinary, agreeable to the flesh? Are they drivelling after minute literature, poetry, fame? Do they shrink from that toil and labour, which, as

Augustine says, OUR COMMANDER, Noster Imperator, accounts most blessed?..... Let us unite in removing misconceptions ; let us join in appealing to Societies ; let us write to particular friends and public bodies ; let us afford correct, intelligible information. Let us send specific and individual invitations : and let us pray the LORD of the HARVEST, that he would SEND FORTH MORE LABOURERS INTO HIS HARVEST."

But in what spirit and in what manner shall such appeals be met? Will our English friends, especially, meet them on the old cold plan, in which all alike, rich and poor together, too idle to discriminate, and unaccustomed to self-denial even in the best of causes, gave, as their sole contribution to missions—gave to each society, the great and small alike—the formal fee of *one Guinea*? If we appreciate at all, as we should, the transcendent importance and grandeur of the missionary enterprise ; if we value, as we should, that gospel, which is 'the power of God unto salvation, to every one that believeth,' we shall not be content to do little, or to spare ourselves in this service. We shall think of the misery that sin now entails upon the earth ; of the value of the souls, that missions may be appointed to save ; of the glorious future for which missions are preparing ;—even that coming time when the Sun of righteousness shall arise, with healing in his beams for every land, where the Prince of this world now reigns. If thus all, who profess and call themselves CHRISTIANS, realize their duties, there will be no lack of labourers and no lack of means. We shall no longer have to beg for more liberal succour—and to beg in vain ! No longer shall we appeal to those whose zeal, piety and talent fit them for labour in the Lord's vineyard, and be met with fancies and with fears. All *then* will act as men, who count themselves alive from the dead, and their members as instruments of righteousness unto God. All then will remember the text ; 'His servants ye are, to whom ye OBEY.' The days of timid, faint-hearted service will be over. The fruitless sympathy of sentimentality at home will give place to holy and devoted men in every land, where the Lord, by His providence, calls his servants to preach. Then, the love of Christ constraining them, His ministers will offer themselves saying ; 'Here am I, send ME : ' and no longer will the soldier of the cross, to obtain the crown which fadeth not away, fear to follow the merchant who seeks in a foreign land for things which 'perish in the using.' And thus labouring in his service, 'God, even our own God, shall BLESS US, and ALL THE ENDS OF THE EARTH SHALL FEAR HIM.'

ART. VII.—*Literary Recreations; or Essays, Criticisms, and Poems. By David Lester Richardson: Author of "Literary Leaves," "Literary Chit-Chat," "Critical and Biographical Notices of the British Poets," &c. Calcutta. 1851.*

THE "Literary Labours of D. L. Richardson," so far as they had then been continued, were examined at considerable length, in the issue of this publication for July 1848. To a hint conveyed in that notice, the public is, in some degree, indebted for the work now laid before it. This hint embodied the advice offered to the author to "recast all his works into one great whole." And it was added that "many may thus be cast overboard, and a work produced that may be launched upon the sea of time without misgivings." We cannot say exactly that upon this hint D. L. R. has spoken again. It required—and we are glad to find a poet displaying so much worldly wisdom—it required an intimation from his publisher that he might venture on a *third* edition of his *Literary Leaves*, to inspire our author, "with courage to prepare the present volume." So we are told in the preface. But we are there told also that he was "the more encouraged to act upon the recommendation of the publisher, and to go somewhat beyond it, from the fact that some time before the *Calcutta Review* had suggested the propriety of his preparing a recast of all his works, and accompanied the suggestion with a very flattering prophecy of the probable fate of such a book as he might then lay before the public."

As, then, the *Calcutta Review* has had so potential a voice in calling the book into existence and determining its character, it must not play the part of a churlish god-father and refuse its support and encouragement to this interesting publication, on the plea that it has done so much for its elder brethren. We must give D. L. R. a second notice, though we cannot promise that it will be either so long or so elaborate as the first.

The book is a portly octavo of about 700 pages, in a type very similar to that which the reader has now under his eye, but rather more of it on the page. It is "not to be regarded as merely a new edition of an old book. It is something more"—we quote the preface again—"for every alternate prose article, with only one exception, now appears for the first time in the pages of a volume, and many of the pieces, both in prose and verse, which have appeared in other volumes, and which are now included in this, had no place in the *Literary Leaves*." To make room for this new matter, again, and to render the collection more select, some of the pieces which appeared in the

Leaves are left out ; but on the other hand, some of those selected have been much altered and considerably enlarged. We may mention that the arrangement is of alternate prose and poetry, a chaplet of mingled precious stones, now a large ruby, emerald, or sapphire, in an essay or a memoir, now a few small but brilliant gems of verse. The book thus formed is, says its author and compiler, "not exactly what the reviewer meant, but it makes some approach to it." So we should say, and a very close approach too, to what the reviewer meant when he spoke of recasting all our author's works and throwing much overboard.

D. L. R.—the initials convey as distinct an individuality to the Anglo-Indian reader, as do those of L. E. L.—D. L. R. was spoken of, in the notice to which we have already referred so often, as a literary veteran who had seen service for a quarter of a century. He has not grown younger, of course, nor has the scroll of his achievements been shortened since that time. The three years which have intervened, have not been spent in idleness, as some of the choicest pieces in this volume suffice to prove. But though the poet and the essayist still toils in the literary field, and may still do so for some time longer, it is not likely that the fruits of his labours will be again gathered by his own hand and bound in a goodly sheaf like this before us. The very nature and substance of the book, regarded in conjunction with the time of its appearance, lead us to the belief, that it is designed as a parting memento of D. L. R. On it he would doubtless found his "hopes of being remembered in his line with his land's language." In it he has garnered all those products of his mind which seem, in the ripe judgment of the author, to be best worthy of such immortality as they may attain. Its contents combine the advantages of youthful force in the composition, and the judgment of maturity in the selection. It is by this book that the author's place in posterity's roll of literary worthies must be decided.

The character and position of D. L. R., as a poet and essayist, are so fully discussed and illustrated in the former article to which we have referred, that it is unnecessary and would be impertinent formally to re-open the subject here. We believe that, as an effect of that reaction of opinion and feeling of which his own works of different dates furnish some noticeable illustrations, he is now as much depreciated in some quarters as he was once over-rated. The man and his works have, of late, been subjected to somewhat severe criticism, especially by writers who saw in him rather the rival journalist than the

meek follower of the muses. But let these and others say what they can, we feel assured that those who know or judge him only by the work before us, will class him with a grade of literary men which, if far from the highest, is equally remote from the lowest. They will admit that his poetry, if it exhibits not much force or originality, is distinguished by a gentle grace of thought and expression—that his prose is clear, elegant, and overflowing with literary lore. He is an artist who paints in water colors and in miniature, rather than one who attempts the bold style of a Michael Angelo or a Salvator Rosa. We admire in his works the soft grace of outline and the delicacy of touch, rather than the vigour of handling or the power of *chiar' oscura*.

But it is time that we proceed to illustrate and exemplify the qualities and qualifications of our author, by the aid of his own works as represented in the book now under our notice. We hardly know, however, how to handle the portly volume, so as to place its contents in the fairest and most effective light. A collection of short selected pieces, varying in character as in subject, and alternating in prose and verse, is more difficult to deal with than a lengthy narrative or a continuous discourse, which may be treated as a whole, one and indivisible.

Suppose, however, we agree to consider the various powers and qualifications of D. L. R., as displayed in these his *Literary Recreations*, first as a poet, and then as an essayist. And by the way, we may observe as a preliminary, that his works generally bear in their title, a sort of modest self-disparagement, that should bespeak, though we are sure it is quite fortuitous and not intended to produce such an effect, the kindly and reasonable forbearance of him who criticises them with tongue or pen. Thus we have his *LITERARY Leaves*, his *LITERARY Chit-Chat*, his *Notices* (not biographies or memoirs) OF THE BRITISH POETS, and now his *LITERARY Recreations*—all indicating in their names, the fact that they are not to be regarded as otherwise than the light productions of leisure hours, as “fugitive” pieces, never designed for the *quasi* immortality of a book.—But this volume, in its two principal divisions, presents its author and compiler in the two-fold character of poet and essayist. Let us then view him first as a poet, and then as an essayist; let us first discuss his verse and then his prose.

The sonnet is a favorite vehicle of poetic thought and language with our author, and he is fastidiously careful in the construction of this difficult form of verse. We cannot then, perhaps, introduce his poetry to the reader more fairly and favourably than with the sonnet which he himself has put

forward to meet the reader, almost on the threshold of his work. It is on a subject of general acceptance, and one which D. L. R. ever approaches with the devotion of a true poet:—

WOMAN.

The day-god sitting on his western throne
 With all his 'gorgeous company of clouds'—
 The gentle moon that meekly dis-enshrouds
 Her beauty when the solar glare is gone—
 The myriad eyes of night—the pleasant tone
 Of truant rills, when o'er the pebbled ground
 Their silver voices tremble—the calm sound
 Of rustling leaves in noon-tide forests lone—
 The cheerful song of birds—the hum of bees—
 The zephyrs' dance that like the footing fine
 Of moonlight fays scarce prints the glassy seas—
 Are *all* enchantments! But Oh, what are these
 When music, poetry, and love combine
 In woman's voice and lineaments divine ?

There is, it will be observed, nothing very new or striking in the thoughts here expressed, but it must be admitted that there is much of beauty and grace in the form and mode of expression, and much of true poetic feeling breathed into what is little more than a catalogue of those beauties of nature which poets, in all ages, have celebrated. But D. L. R. is rather strong in the art of "word painting."

The following "landscape with figures," seems to us particularly worthy of admiration. Here, depicted on the leaf from which we have already copied, and on the following page, is a scene viewed from an "English hill," rendered quite in the manner of Gainsborough or Constable:—

Scattered all around were seen,
 White cots on the meadows green,
 Open to the sky and breeze,
 Or peeping through the sheltering trees
 On a light gate, loosely hung,
 Laughing children gaily swung;
 Oft their glad shouts, shrill and clear,
 Came upon the startled ear,
 Blended with the tremulous bleat
 Of truant lambs, or voices sweet
 Of birds, that take us by surprise,
 And mock the quickly-searching eyes.

Nearer sat a bright-haired boy,
 Whistling with a thoughtless joy;
 A shepherd's crook was in his hand,
 Emblem of a mild command;
 And upon his rounded cheek
 Were hues that ripened apples streak.
 Disease nor pain, nor sorrowing,
 Touched that small Arcadian king;

His sinless subjects wandered free—
 Confusion without anarchy ,
 Happier he upon his throne,
 The breezy hill—though all alone—
 Than the grandest monarch proud
 Who mistrusts the kneeling crowd.

On a gently rising ground,
 The long green valley's farthest bound,
 Bordered by an ancient wood,
 The cots in thicker clusters stood,
 And a church uprose between,
 Hallowing the peaceful scene.
 Distance o'er its old walls threw,
 A soft and dim cerulean hue,
 While the sun-lit gilded spire
 Gleamed as with celestial fire !

This is nature, but nature in a poetic dress. That "small Arcadian king," is evidently of the same royal race as the shepherd boy, whom the Pilgrims encountered in "the valley of humiliation," and who "wore more of the herb called *heart's ease* in his bosom, than he that is clad in silk and velvet."

Here again is a sketch of another character "on the banks of the Ganges":—

At my feet a river flows,
 And its broad face richly glows
 With the glory of the sun,
 Whose proud race is nearly run.
 Ne'er before did sea or stream
 Kindle thus beneath his beam ,
 Ne'er did miser's eye behold
 Such a glittering mass of gold !
 'Gainst the gorgeous radiance float
 Darkly, many a sloop and boat,
 While in each the figures seem
 Like the shadows of a dream ,
 Swiftly, passively, they glide,
 As sliders on a frozen tide

The minute truth of the last three couplets will be at once seen and acknowledged by the Indian reader. And here we have a more elaborate picture, as true, poetically, to the scenery of Bengal and the banks of the Hoogly, as aught of Daniell or D'Oily:—

Fair scenes ! whence envious Art might steal
 More charms than fancy's realms reveal—
 Where the tall palm to the sky
 Lifts its wreath triumphantly—
 And the bambu's tapering bough
 Loves its flexile arch to throw—
 Where sleeps the favored lotus white,
 On the still lake's bosom bright—

Where the champac's blossoms shine,
 Offerings meet for Brahma's shrine ;
 While the fragrance floateth wide
 O'er velvet lawn and glassy tide—
 Where the mangoe tope bestows
 Night at noon-day—cool repose
 'Neath burning heavens—a hush profound
 Breathing o'er the shaded ground—
 Where the medicinal neem,
 Of palest foliage, softest gleam,
 And the small-leaved tamarind
 Tremble at each whispering wind—
 And the long-plumed cocoas stand
 Like the princes of the land,
 Near the betel's pillar slim,
 With capital richly wrought and trim—
 And the neglected, wild sonail
 Drops her yellow ringlets pale—
 And light airs summer odours throw
 From the bala's breast of snow—
 Where the Briarean banian shades
 The crowded ghât, while Indian maids,
 Untouched by noon tide's scorching rays,
 Lave the sleek limb, or fill the vase
 With liquid life, or on the head
 Replace it, and, with graceful tread
 And form erect, and movement slow,
 Back to their simple dwellings go—
 Walls of earth, that stoutly stand,
 Neatly smoothed with wetted hand—
 Straw-roofs, yellow once and gay,
 Turned by time and tempest gray—
 Where the merry minahs crowd
 Umbrageous haunts, and chirrup loud—
 And shrilly talk the parrots green
 'Midst the thick leaves dimly seen—
 And through the quivering foliage play,
 Light as birds, the squirrels gay,
 Quickly as the noontide beams
 Dance upon the rippled streams—
 Where the pariah* howls with fear,
 If the white man passeth near—
 Where the beast, that mocks our race,
 With taper finger, solemn face,
 In the cool shade sits at ease,
 Calm and grave as Socrates—
 Where the sluggish buffalo
 Wallows in mud, and huge and slow,
 Like massive cloud, or sombre van,
 Moves the land leviathan†—
 Where beneath the jungle's screen
 Close-enwoven, lurks unseen
 The couchant tiger ; and the snake
 His sly and sinuous way doth make

* The dog of Bengal.

† The Elephant.

Through the rich mead's grassy net,
 Like a miniature rivulet—
 Where small white cattle, scattered wide,
 Browse from dawn to even-tide—
 Where the river-watered soil
 Scarce demands the ryot's toil ;
 And the rice field's emerald light
 Outvies Italian meadows bright,—

We give only a corner of the landscape, but it will serve to illustrate the truth and beauty of the painting. And here, as if to compel us to carry on the comparison of poetry with painting, is a companion-pair of "*Ocean Sketches*," selected from a collection of nine—all of equal or almost equal fidelity and finish. D. L. R., with all his talent of description, never excelled these gems of art:—

A BREEZE AT MID-DAY

The distant haze, like clouds of silvery dust,
 Now sparkles in the sun. The freshening breeze
 Whitens the round sea-plain ; and, like a steed
 With proud impatience fired, the glorious ship
 Quick bounds exultant, and with rampant prow
 Off flings the glittering foam Around her wake,
 A radiant milkv way, the sea-birds weave
 Their circling flight, or slowly sweeping wide
 O'er boundless ocean, graze with drooping wing
 The brightly-crested waves Each sudden surge,
 Up dashed, appears a momentary tree
 Fringed with the hoar frost of a wintry morn ,
 And then, like blossoms from a breeze-stirred bough,
 The light spray strews the deep.

How fitfully the struggling day-beams pierce
 The veil of heaven !—On yon far line of light,
 That like a range of breakers streaks the main,
 The ocean swan—the snow-white Albatross—
 Gleams like a dazzling foam-flake in the sun !—
 Gaze upward—and behold, where parted clouds
 Disclose ethereal depths, its dark-hued mate
 Hangs motionless, on arch-resembling wings,
 As though 'twere painted on the sky's blue vault

Sprinkling the air, the speck-like petrels form
 A living shower ! Awhile their pinions gray
 Mingle scarce-seen among the misty clouds,
 Till suddenly their white breasts catch the light,
 And flash like silver stars !

A CALM AT MID-DAY.

Now in the fervid noon the smooth bright sea
 Heaves slowly, for the wandering winds are dead
 That stirred it into foam. The lonely ship
 Rolls wearily, and idly flap the sails
 Against the creaking mast. The lightest sound
 Is lost not on the ear, and things minute
 Attract the observant eye

The scaly tribe,
Bright-winged, that upward flash from torrid seas,
Like startled birds, now burst their glassy caves
And glitter in the sun ; while diamond drops
From off their briny pinions fall like rain,
And leave a dimpled track.

The horizon clouds
Are motionless, and yield fantastic shapes
Of antique towers, vast woods and frozen lakes,
Huge rampant beasts, and giant phantoms seen
In wondrous visions only

High o'er head,
Dazzling the sight, hangs, quivering like a lark,
The silver Tropic bird ;—at length it flits
Far in cerulean depths and disappears,
Save for a moment, when with fitful gleam
It waves its wings in light. The pale thin moon,
Her crescent floating on the azure air,
Shows like a white bark sleeping on the main
When not a ripple stirs. Yon bright clouds form
(Ridged as the ocean sands, with spots of blue,
Like water left by the receding tide)
A calm celestial shore !—How beautiful !
The spirit of eternal peace hath thrown
A spell upon the scene ! The wide blue floor
Of the Atlantic world—a sky-girt plain—
Now looks as never more the tempest's tread
Would break its shining surface , and the ship
Seems destined ne'er again to brave the gale,
Anchored for ever on the silent deep !

But it is not in the description of inanimate beauty or of still life only, that our poet is skilled. Here is a " portrait of a lady" lovely and noble in form and mind :—

It was not the magic spark
From an eye so large and dark,
Nor the forehead high and fair,
Nor the long rich flakes of hair,
Like the floating clouds that grace
The sweet moon's out-brightening face -
Nor the mouth, whose flexile bow
With each movement, swift and slow,
Deadlier than the Boy-God's art,
Sends an arrow to the heart—
Nor the small hand, ear and foot,
That high blood and old impute—
Nor the manner, nobly bred—
Nor the well-set, stately head,
Bending, rising, like a flower
When the breeze just stirs the bower—
Nor the shoulder's sheet of snow—
Nor the little hills below—
Nor the round chin, chiselled fine—
Nor the smooth cheek's flowing line—
Nor the curves the painter loves
When the worshipped model moves—

Oh not one of these, nor all
That have made so many fall
Prostrate on the earth before thee,
Caused *my* spirit to adore thee !

Lady, 'twas a spell refined
Woven by the heart and mind ,
Else perchance had I withstood
Witcheries of flesh and blood ;
But to heighten every grace
And etherealize the face,
Making the bright form more bight ,
Like a vase alive with light,
All my raptured soul to win,
Came a glory from within.

Wisdom, genius, wit and worth,
Sage-like thinking, child-like mirth,
Taste unerring, skill thine own,
Painting's touch, and music's tone,
Mockness in thine happiest mood,
In affliction fortitude,
Firmness ne'er devoid of truth,
Generous tenderness and truth,
And each nameless lesser charm
That can worldly cares disarm,
That to Woman God hath given
To make this else dull earth a heaven,--
These, sweet Lady, these are thine—
A moral galaxy divine !

Of course,—and these lines lead naturally to the declaration, D. L. R., like all other true poets, is, or has been, an ardent lover. But he is not an amatory poet. There are “ love verses” in the volume before us, and they evince a delicate sentiment, quite in keeping with that which pervades all the other compositions of the author. But the passion seldom, if ever, rises above admiration. A beautiful scene, or a beloved child, calls forth a more rapturous expression of feeling than all the enchantments of the gentler sex can evoke. Here, now, are some stanzas of farewell, that speak but coldly the lover's despair :—

I
You bid me not repine—
You'll '*love me evermore.*' -
'Tis this sweet truth of thine
That makes our parting sore.

II
If I could but believe
That fondly trusted heart
Could change, or could deceive,
'Twould pain me less to part.

III

If I could only deem
Thine heart so false a thing,
One tear for a past dream
Were all my sorrowing.

IV

But well I know thy worth,
And what my loss must be ;
There is not on this earth
So dear a thing to me

V

One kiss—one more—the last
Perchance for many a year !—
The small hand's pressure's past--
She's gone—and *I am here* !

VI.

I wake as from a dream,
And real horrors rise ;
I thought not life could seem
So dark to human eyes.

VII.

The prisoner that can see
The face he loveth well
(Though 'tween his bars) may be
Resigned within his cell.

VIII.

But when malignant fate
Doth that last solace steal,
In his so lonely state
He feels what I now feel.

There are other "farewell stanzas," equally calm as these, but we will not quote them. The following "stanzas" are better and eloquently speak warm natural feeling :—

I.

They tell me health's transparent flower glows freshly on thy cheek,
They say that in the festal hall thy looks of rapture speak ;
They know that boundless love is mine, but do not read my heart,
And little dream their friendly words awake an inward smart.

II.

I well might weep to learn that care had blanched thy lovely brow,
And yet thine happier fate calls forth no grateful gladness now ;
I judge from this sad jealous breast, and deem if thou wert true,
Thou could'st not feel a moment's mirth, nor wear that rosy hue.

III.

I should not thus forget, dear girl, that early years are bright,
That hearts so young and pure as thine are touched with holy light,
And like the fountain's crystal streams that through spring meadows
run,
Reflect alone the fairest things that kindle in the sun.

IV.

They tell me too, that 'mid the crowd thou hast a smile for all,
That oft upon the lowliest ear thy kindest accents fall :
And oh ! I doubly mourn my fate, and breathe an envious sigh,
To think the stranger hears that voice, and meets that radiant eye !

V.

And yet 'tis selfish thus to grieve—'tis base to doubt thy truth,
Those looks and tones of tenderness be seem thy gentle youth ;
And if thy soul of virtue's charms displays a bounteous store,
Thou need'st not, sweet one, love the less, though I must love the more.

VI.

In fancy's trance I kiss thy brow, and clasp thee to my breast—
But ah ! how soon that dream departs, like sun-light in the west !
And then my path is dark as their's who wander through the night,
When suddenly the fitful winds have quenched a cheering light.

VII.

And yet not wholly comfortless is home's deserted cell,
For there thy written words remain of faithful love to tell ;
And these are symbols of the soul that life's fond records save,
E'en when the hand that traced the lines is mouldering in the grave.

VIII.

And still around my neck is hung that last dear gift of thine,
So like a fairy talisman—a spell almost divine !
I hold it in my trembling hand—I touch thy braided hair !
I do but press the secret spring—and see thy features fair !

We must extract the following sonnet too, if merely to show that our poet has known enough of love to enable him to give good advice to one similarly afflicted :—

TO A FRIEND IN LOVE.

Believe me, dearest friend, 'twere nobler far
To scorn the prize for which thy soul hath yearned,
Than tamely feed a passion proudly spurned
By one whom thou hast worshipped as a star.
Oh ! live not thus eternally at war
With loftier hopes ! Before thy young veins burned
With love's sweet poison, who like thee discerned
The glad earth's glory, or so laughed at care ?
Arrest then quickly this delirious fever,
Nor breathe again an unavailing sigh ;
Forget a cold, disdainful heart for ever ;
Seek the green meadows and the mountains high
And crystal rivers Feast thine amorous eye
On Nature's charms, for she repulseth never.

The sonnet, as we have mentioned, is a favourite form of verse with our poet, and it is one in which he excels. Hence we are tempted to give a few more specimens of his taste and skill in weaving poetical thoughts into this web of linked sweetness :—

SONNET.

Dear G——, old friendships are a welcome theme,
Yet mournful ever, for o'er bright years fled
We muse, and call up faces of the dead,
And pleasures past and many an early dream.
Then the long voyage on Life's mystic stream
Seems all too brief—we turn and gaze a-head,
And watch the dim night gradually spread,
While yet our wake is tinged with golden gleam.
How bland the breeze, how beautiful the wave,

We never felt as now, when o'er the sky
 Sweet day begins to fade, and time's swift tide
 Hath brought us nearer to that ocean wide—
 Eternity—of mortal dreams the grave—
 Vast treasury of the things that may not die!

SONNETS.

BY A BRITISH-INDIAN EXILE TO HIS DISTANT CHILDREN.

I.

My sad heart sickens in this solitude—
 Home is no longer home,—yet eloquent
 Are these lone walls of by-gone merriment—
 The noisy pranks of that small blithesome brood
 That call me *father*! Memories sad intrude,
 Like silent ghosts, where late the air was rent
 With shouts of joy—where merriest hours I spent
 With merriest playmates in their merriest mood!
 Dear human links that bind me to life's oar!
 Sweet stars that pierce the dark cell of my heart!
 Clearer than in a glass, e'en now before
 Mine eyes ye come, as when so grieved to part
 I shed the bitter tear.—ah! Fancy's art
 Transcends the wondrous skill of wizards' hour!

II.

Not mirrored shapes—*realities* ye seem!
 Sweet ones! at this glad moment I behold
 What never famed Italian painter old
 Hath rivalled, or the poet's printed dream—
A living picture! She whose soft eyes gleam
 With gentle love—who, coy, but ah, not cold,
 Drops their fair lids when strangers' looks are bold—
 Sits at the side of one whose bliss supreme
 Is all maternal To that mother's knee
 The youngest girl, half-pleased, half-frightened, lies;
 For lo! my cherub boy, with innocent glee,
 Masks his frank features for a gay surprize!
 Loud laughs the second born:—her charms are three—
 Rose cheeks, and cherry lips, and violet eyes!


III.

I hear the waves upon the sad sea-shore—
 And ah! my visionary group hath fled!
 To me those dear existences are dead,
 For distance is a death that all deplore
 Who part as we have parted, never more
 To meet as we have met—alas! instead
 Each with a sadder heart, a graver head—
 So different, though the same! Perchance before
 Their cottage white my prattlers are at play!—
 I hear the waves upon the sad sea-shore!
 Those billows roll between us,—who shall say
 They'll bear my treasures back—that they'll restore
 A family to a father, weak and gray,
 Who soon must sleep beneath earth's grassy floor?

Calcutta, July 12, 1842.

We have said that a beautiful scene, or a beloved child, calls forth a more rapturous expression of feeling from D. L. R., than all the enchantments of the gentler sex can evoke. His appreciation of the beauties of nature as displayed on land and water, we have already amply illustrated. Of his devotion to his children, the book contains many tokens,—they have inspired some of his best and most heart-stirring poetry. And how could the muse be embodied more beautifully, more purely than in a lovely and loving child. “Of such is the kingdom of heaven,” and on earth, our guardian angels oft assume their form and feature. We knew a man who, when tempted to sin, if he had only strength to carry him amongst his children, was beyond the tempter's power ; even if he could but occupy his heart with thoughts of them he was, he said, almost safe. But to return to our poet and *his* children. Thus he speaks of them as the “consolations of exile,” even when absent and distant:—

Fair children ! still, like phantoms of delight,
 Ye haunt my soul on this strange distant shore,
 As the same stars shine through the tropic night
 That charmed me at my own sweet cottage door.
 Though I have left ye long, I love not less ;
 Though ye are far away, I watch ye still ;
 Though I can ne'er embrace ye, I may bless,
 And e'en though absent, guard ye from each ill !
 Still the full interchange of soul is ours,
 A silent converse o'er the waters wide,
 And Fancy's spell can speed the lingering hours,
 And fill the space that yearning hearts divide.
 And not alone the written symbols show
 Your spirits' sacred stores of love and truth,
 Art's glorious magic bids the canvas glow
 With all your grace and loveliness and youth ;
 The fairy forms that in my native land
 Oft filled my fond heart with a parent's pride,
 Are gathered near me on this foreign strand,
 And smilingly, in these strange halls, reside !
 And almost I forget an exile's doom,
 For while your filial eyes around me gleam,
 Each scene and object breathes an air of home,
 And time and distance vanish like a dream !

There are several other pieces addressed to his children, or of which they are the subject ; but the following verses seem to us so good, that  are tempted to pass by the rest, and to give these entire, notwithstanding their length :—

STANZAS TO MY CHILD.

I.

I gaze on thy sweet face,
 My lightly laughing boy !
 And charms no painter's hand could trace
 Behold in pride and joy,

While pleasure almost turns to pain,
 (For human hearts may scarce sustain
 Such bliss without alloy),
 Till tears, too sweet for those who grieve,
 Gush forth to chasten and relieve !

II.

And e'en when sorrow's hour
 Brings gloom upon my soul,
 And shades o'er Life's dull landscape lour
 Like clouds that slowly roll
 Round solemn Twilight's dusky car,
 'Thine image kindles as a star,
 To cheer me and console,
 And dreary thoughts and mournful dreams
 Soon pass like mist 'neath morning beams.

III.

For in that bright blue eye
 Still glow the rays of bliss,
 Like lustre from an azure sky,
 Or realms more fair than this ;
 Though vexed with worldly cares I roam,
 They shall not darken this dear home,
 Nor check the rapturous kiss
 That greets thy fresh and rosy charms
 When clasped within mine eager arms !

IV.

This heart indeed were cold
 To feeling's gentle sway,
 If while thy fairy form I fold,
 And those small fingers play
 Around my neck, thy face the while
 Upraised to catch the wonted smile,
 Mine eye could turn away,
 Or that calm sullen language wear
 That tells of sadness or despair.

V.

I have not darkly roved
 O'er Nature's fair domain,
 Nor gazed on sun-lit scenes unmoved
 In hours of mental pain,
 And far less could my soul disown
 The light round sinless children thrown,
 That ne'er can shine again
 When years bring guilt, and life no more
 Is bright and joyous as before.

VI.

I see my own first hours,
 While lingering over thine,
 I see thee pluck the fresh spring-flowers,
 An artless wreath to twine ;
 The same bright hues their beauty yields
 As those I sought in dewy fields,
 When kindred bliss was mine ;
 And while by memory thus beguiled,
 I almost deem myself a child.

VII.

How oft the phantom Caro
 Hath swiftly passed away,
 As some night bird that may not dare
 The morning's holy ray,
 While half unconsciously mine eye
 Hath drank thy charms, till suddenly
 I felt the fond smile play
 Around my lips, nor could refrain,
 But kissed thee o'er and o'er again!

VIII.

I've watched thy little wiles,
 A thousand times and more,
 And yet they win my ready smiles
 As freely as before;
 Thy dear, familiar, prattled words
 Are sweeter than the songs of birds
 On some calm sun-lit shore ;—
 Each *new* grace brings as proud surprize
 As lights a star-discoverer's eyes.

IX.

E'en " thrice-told tales " are sweet
 That cheerful children tell,
 On sounds their lovely lips repeat
 The car for aye could dwell ;
 Unlike all other things of earth
 Their winning ways and sinless mirth
 Still hold us as a spell ;
 In every mood, in every hour
 They bear the same enchanting power

X

Ah ! dearest child, if thou
 A child couldst thus remain,
 And I for ever gaze as now
 On one without a stain
 Of earthly guilt or earthly care,
 With heart as pure and form as fair
 As sainted spirits gain,
 Methinks e'en this drear world might seem
 A heaven as sweet as man could dream !

XI.

But mortal flowerets grow
 Till all their bright tints fade,
 And thy maturer bloom must know
 The bleak world's tempest-shade :—
 Thine eyes a father's fall shall trace,
 His form shall sink before thy face,
 And when thine heart hath paid
 Its tribute brief of natural tears,
 Thou'lt seek awhile what soothes and cheers.

XII.

As I now gaze on thee
 E'en thou perchance shalt gaze
 On one whose smiles of guiltless glee
 The same proud bliss shall raise,

'Till he to sterner manhood grown
 Shall see thee to the grave go down,
 And while thy frame decays
 Beneath the cold, damp, silent sod,
 Shall follow in the track thou'st trod.

XIII.

Alas ! how this dim scene
 Is fraught with change and death !
 What countless myriads here have been
 To breathe a moment's breath,
 Then sink beneath that mortal doom
 That makes the wide green earth a tomb,
 Its flowers a funeral wreath ;
 And oh ! what countless myriads more
 Shall rise and fall ere Time is o'er !

XIV.

One after one we fill
 The darkly yawning grave ;
 On Time's vast ocean never still
 Thus wave succeedeth wave ,
 And all, that from the wreck of life,
 The change, the tumult, and the strife,
 The happiest fate may save,
 Is but the memory of a dream,
 A name whose glory is a gleam !

XV.

But hence with thoughts like these,
 (The present still is ours !)
 They come like autumn's blighting breeze
 Through summer's leafy bowers ,
 Thy glittering eye and sunny brow
 Are all my soul shall gaze on now ,
 And when the future lowers,
 I'll think of that celestial clime
 Where all things own eternal prime !

XVI.

The transitory gloom
 Is floating fast away !
 I cannot long behold thy bloom
 And dream of dull decay ;
 And like a sun-burst on the scene
 Where April's fitful clouds have been
 Is joy's returning ray,
 While balm is shed from fancy's wing,
 Like odours waving spice-boughs fling

XVII.

Oh, how that fair face glows !
 How that small bosom heaves !
 Those red lips tremble like the rose
 When light airs part the leaves ;
 A sudden laughter fills thine eye,
 And comes as if thou knew'st not why,
 As viewless zephyr weaves
 The dimples shining waters show—
 Like those thy cheeks are wearing now !

XVIII.

Oh ! spirit gladdening sight !
 Oh ! happiness divine !
 To feel a father's sacred right,
 To call such cherub mine !
 A humble name, and lowly state
 Have been, and still may be, my fate,
 Yet how can I repine
 At want of wealth, or fame, or power,
 While blest with this fair human flower !

That is about the longest poem in the book. D. L. R.'s muse, though often on the wing, has never taken a long flight. This is unfortunate for his fame as a poet. No modern bard may hope to live in the mind of posterity, unless he has enshrined his memory in some goodly monument, the work of his own genius. Even the glowing lyrics of Burns would scarce suffice to preserve the individuality of their author, unless aided by his "Cottar's Saturday night."

D. L. R. has scarcely attempted narrative poetry, unless we may recognize such an attempt in one or two short stories in blank-verse, and as many "anecdotes," gracefully rendered in rhyme. One of the former entitled "A soldier's dream"—of the last judgement and its consequences,—seems to be the result of an experimental attempt at the grand style in poetry—our author's first (and happily, we believe, his only) attempt, and that too a very little one, in this style. We give a small sample of D. L. R.'s dealings with the horrible:—

And now with horrid laughter mixed with yells
 More terrible than shuddering Fancy hears
 Raising strange echoes in the charnel vault,
 Uprose grim Fiends of Hell, and urged us on,
 Through paths of hideous gloom, till like the sea
 At night, wide shown beneath the lightning's glare,
 A boundless plain quick burst upon the view !
 In the dim distance glittered shafts of war ;—
 Wild Horror's cry, and Hate's delirious shout,
 The din of strife, and shrieks of agony,
 Came on the roaring blast ! A mighty voice,
 Piercing the dissonance infernal, cried,
 "*On to the Hell of Battle !*" These dread words,
 Like sudden thunder, startled and dismayed
 Each quailing warrior's soul. But soon despair
 Was wrought to frenzy, and we madly rushed
 To join the strife of demons !

One alone
 Amid that countless throng now caught mine eye !
 His was the form I loved not in my youth,
 And cursed in after years We fiercely met—
 A wild thrust reached him. Then he loudly shrieked,
 And Death's relieving hand besought in vain,

Where Death could never come ! With quenchless rage,
 And strength untamed, on his triumphant foe,
 Again he turned !—but *he* was victor now ;—
 And in unutterable pain—I woke !

'Twas morning—and the sun's far-levelled rays
 Gleamed on the ghastly brows and stiffened limbs
 Of those that slumbered—ne'er to wake again !

Surely our tender-hearted poet must have supped on something heavier than ambrosia, before he dreamed this dream and wrote this poem !

It is only experimentally, too, that our poet has essayed his powers as a humourist. In only one of his effusions in verse do we find any attempt at the facetious, and this solitary effort is not, to our thinking, a happy one. It is a piece entitled "The Rivals," which commences thus:—

I wish, mamma, you'd tell that man
 To keep his money—and his distance ,
 For let him tease me all he can,
 He'll never conquer my resistance
 He slyly pinched my cheek one day—
 (The wretch !) and tried to look most charming,
 While I felt any thing but gay,
 And thought his fondness quite alarming.

"Come now," said I "I'll test your love ;"
 [The rich old hunks looked pleased and tender,]
 "Ah ! Dearest !" cried he, "Darling ! Dove !"
 What service could I fail to render ?"
 "I care not for your purse or place,"
 Said I, "for these could charm me never ,
 But grant one favour—hide your face,
 And let us say farewell for ever,"

And, after the young lady has indirectly expressed a decided and very proper preference for her poet lover over "the rich old hunks," she concludes thus:—

I wish, mamma, you would not quiz,
 You vex me with your wicked smiling ;
 You think I'm smitten with his phiz,
 And that his Muse is too beguiling ?
 Well, have it all your own way, then,
 And, if it will afford you pleasure,
 I'll own he is the best of men,
 And that his heart would be a treasure.

"Behold the gentle minstrel comes !—
 You love each other, and you show it,"
 (Exclaims Mamma,) "so no more *hums* ;
 Charles, take her !—Mary, here's your poet !—
 Exchange your vows and laugh at sorrow,
 Indulge in love's delicious frenzy.
 And Mary shall be styled to-morrow,
 The pretty Mrs. Charles Mackenzie."

The psychological poetry of D. L. R. is distinguished rather by purity of sentiment and elegance of expression, than depth of thought and power of imagination. There is no aiming at the sublime or the mysterious. The reader is never oppressed by a weight of imagery, or bewildered by abstrusities of expression. There are no "versified metaphysics" in the volume before us, and we are glad that it is so. He may run who readeth, and never have to stop or turn back to ponder over a true or beautiful thought, ere he can recognise its truth or its beauty. The greatest fault, if it be not rather a mere characteristic than a fault, is the general prevalence of a melancholy feeling, the feeling of an exile. D. L. R. is an expatriated Briton, doomed for a very uncertain time to fast from the beauties of European nature and the delights of English social life, in the fires of this dull, tame, scorched and steaming Bengal. He is a poet and feels this privation. He is, moreover, a father separated from his children, and this adds poignancy to the feeling. Hence, not only does this spirit pervade much of his poetry, but it also displays itself in the subject, tenor and title of many of his poems. It is not, however, that the poet cannot appreciate the beauties of the soil and clime on which and in which it is his lot still to dwell. That he can do so, and that yet, in spite of his frequent and laudably earnest efforts at resignation, he still feels all the woes of exile, is manifest in such verses as the following :—

HOME-VISIONS.—WRITTEN IN INDIA.

I.

The skies are blue as summer seas—the plains are green and bright—
The groves are fair as Eden's bowers—the streams are liquid light—
The sun-rise bursts upon the scene, like glory on the soul,
And richly round the couch of Day the twilight curtains roll

II.

But oh ! though beautiful it be, I yearn to leave the land —
It glows not with the holier hues that tinge my native strand,
Where shadows of departed dreams still float o'er hill and grove,
And, mirrored in the wanderer's heart, immortalize its love !

III.

I gaze upon the stranger's face—I tread on foreign ground,
And almost deem Enchantment's wand hath raised up all around :—
My spirit may not mingle yet with scenes so wild and strange,
And keeps in scorn of fleshly bonds its old accustomed range.

IV

In that sweet hour when Fancy's spell inebriates the brain,
And breathing forms to phantoms turn, and lost friends live again,
Oh ! what a dear delicious joy unlocks the source of tears,
While like unprisoned birds we seek the haunts of happier years.

But we were discussing the character of D. L. R.'s psychological poetry, and must not be tempted back to wander among the beauties of his description. Briefly then, for we find that we are transgressing the limits which we have assigned to this branch of the subject, we will proceed to select a poetical piece, which will suffice to show that our author can deal with other and more serious subjects than bright skies and bright eyes. The following appears to us excellent alike in style, sentiment and moral :—

DEATH.

"I leave you and all my other concerns, in the hands of that God, who will certainly do that which is best for us both ; but I can assure you, that if my prayers, and the prayers of a great many excellent friends here about, can keep you a few years longer from heaven, you will not be there very soon."—*Correspondence and Diary of Philip Doddridge, D. D.*

I

We weep and tremble at the doom—
 The dreadful doom of death :
 'Tis sad amidst the fair earth's bloom
 To yield this mortal breath !
 The brave may proudly bear the pain—
That soon must pass away—
 But oh ! to think that ne'er again
 Dear friends with eager hands shall greet,
 Or fond hearts share Love's converse sweet,
 O'erwhelms us with dismay !

II

'Tis true that trusting faith is told
 Of worlds beyond the sky,
 And few there are so blind or bold
 As dare such creed deny ;
 It is not that an after-state,
 Or dark or doubtful seems ,
 Alas ! we shrink from future fate
 Because we may not brook the thought
 That hours with Life's endearments fraught
 Are unreturning dreams !

III.

We find each earthly bliss alloyed,
 Each smile foretells a tear ;
 But yet the breast would soon be cloyed
 That never felt a fear :—
 The beauty of the brightest beam
 Is deepened by the shade—
 Fairest the stars through darkness gleam—
 The broad red sun of even-tide
 Assumes a more imposing pride
 In floating clouds arrayed.

IV.

Perfection hath not reigned on earth,
 Nor ruled the human mind ;
 We pant not for diviner worth
 Nor raptures more refined ;

A human weakness makes us cling
 To human forms alone ;
 We feel we cannot coldly fling
 On Lethe's dark insatiate stream
 The charms of Life's familiar dream
 And turn to scenes unknown.

v

'Tis this that fills the final hour
 With mournfulness and dread ;
 Love's tender ties and friendship's power
 Avail not with the dead !
 And though we meet to part no more
 We shall not be the same ,
 The things that linked our hearts of yore
 The damp cold hand of death divides,
 And nought in holier realms abides
 Of this terrestrial frame.

vi.

Thy radiant fields, Eternity !
 The dreamer's breast alarm ;
 They echo not a human sigh
 Nor own a human charm !
 Thy skies the dazzled soul appal
 And too severely glow ;
 Their hues no mortal days recall ;—
 And in thy bright and boundless space
 Where only spirits dwell, we trace
 No features loved below !

vii.

Oh, visions weak and idle fears
 That fleshly hearts beguile,
 At which methinks through pitying tears
 Angelic faces smile !
 Were that dark curtain drawn aside
 This world and heaven between,
 How all the painted mists of pride,
 Delusive hopes, and fancies vain,
 Would fade like twilight's shadowy train,
 'Neath day's broad sky serene !

viii

For He, who breathed us into birth,
 And placed us here below,
 Who made the dull mole under earth
 A sense of pleasure know,
 Who bade the bee suck luscious life
 From plants that poison bear,
 And gave to Man in fields of strife
 A taste of peace—in heavenly bowers
 Will surely grant diviner powers
 Diviner bliss to share.

ix.

With God shall God-like spirits dwell,
 With God-like rapture glow,
 Nor on their dim deserted cell
 One glance regretful throw ;

And as the man out grows the child,
 Each earth-freed soul mature,
 With Life's mean gauds no more beguiled,
 Shall proudly rise o'er mortal dreams,
 And scatter, like a sun, the steams
 Of this low soil impure !

And now we turn to our poet's prose compositions, not reluctantly, for we find in them much reading as pleasant and profitable as that supplied by his verse. It is here that he displays the rich and varied treasures of his literary erudition, setting them worthily in a style, pure, elegant and charming. He is a true poet—we will not pretend to say, of the highest order—and as a poet he is, perhaps, best known to the public. But we like him better as an essayist than as a poet. Indeed, it is in this department of literature that his matured powers have been most largely exercised. Like the majority of able prose writers, he began in verse ; and, unlike many of that majority, he succeeded sufficiently well to win the reputation of a poet. Prose however has been his business, verse the occupation and solace of his leisure hours. But while his poetry is all poetry, much of his prose is truly poetical in sentiment and expression. Take for instance this, our first excerpt, from a delightful essay on his favourite subject, "Children :"—

If men may dare to idolize any sublunary thing, it is a sunless and smiling child. "Suffer," says Jesus Christ, "little children to come unto me, and forbid them not, *for of such is the kingdom of heaven*" The author of these beautiful words was once an infant himself, and oh, ineffable glory ! the pure light that encircled the child, still shone around the man ! It is a touching, and I hope not an irreverent reflection, that he whose manhood surpassed all human conceptions—he whom men believe to have been the Deity himself—did not, in his earlier years, exhibit to earthly eyes more innocence and beauty than are easily conceivable in a human child. Could we but preserve our first purity with the progress of our intellectual powers, we should, indeed, be little lower than the angels. The description of our first parents in Paradise is like a radiant vision ; but I cannot help regarding it, beautiful as it is, as in some degree deficient in one great source of poetical and human interest, when I remember that they knew not the charms of childhood, but came abruptly, I had almost said unnaturally, into mature existence, unaccompanied by those earlier associations, which like the shadows in the golden light of evening, grow more and more lovely as our day declines, and reflect their lingering hues upon our latest path. Methinks that even Paradise itself would have looked more divine, had little human cherubim flitted gaily over the green velvet slopes, and passed from flower to flower, their light laughs breaking like celestial music on the air, and their golden locks glittering in the sun.

A lovely woman is an object irresistibly enchanting, and the austerer grace of manhood fills the soul with a proud sense of the majesty of human nature ; but there is something far less earthly and more intimately allied to our holiest imaginings in the purity of a child. It satisfies the most delicate fancy and the severest judgment. Its happy and affectionate feel-

ings are unchecked by one guileful thought or one cold suspicion. Its little beauteous face betrays each emotion of its heart, and is as transparent as the silvery cloud-veil of a summer sun that shows all the light within. It is as fearless and as innocent in its waking hours as in its quiet slumbers. It loves every one, and smiles on all !

I have sometimes gazed upon a beautiful child with a passion only equalled in intensity by that of youthful love. The heart at such a time is nearly stifled with a mixed emotion of tenderness, admiration, and delight. It almost aches with affection. I can fully sympathize in a mother's deep idolatry. I love *all* lovely children ; and have often yearned to imprint a thousand passionate kisses upon a stranger's child, though met, perhaps, but for a moment in theatres or in streets, and passing from me, like a radiant shadow, to be seen no more. The sudden appearance of a child of extraordinary beauty comes upon the spirit like a flash of light, and often breaks up a train of melancholy thoughts, as a sun-burst scatters the mist of morning.

The changing looks and attitudes of children afford a perpetual feast to every eye that has a true perception of grace and beauty. They surpass the sweetest creations of the poet, or the painter *. They are prompted by maternal nature who keeps an incessant watch over her infant favourites, and directs their minutest movements, and their most evanescent thoughts. Beneath such holy tutorage they can never err. They throw their sleek and pliant limbs into every variety of posture, and still preserve the true line of beauty, as surely as a ball preserves its roundness. They live in an atmosphere of loveliness, and like moving clouds are ever changing their ethereal aspects, and yet always catch the light.

Even the moral defects of maturer years are often beautiful in childhood, and bear a different character. The cunning of the man is innocent archness in the child. Ignorance in the one, is a gross and miserable condition ; in the other, it is purity and bliss. The imperfections, that are ludicrous or offensive in manhood, in infancy are inexpressibly engaging. The stammering of an adult, or his mistakes in acquiring a new language, are unpleasant to the most friendly ear, and even lower him in some degree in his own estimation. But the first imperfect sounds and broken words of a child are as sweet as the irregular music of interrupted rivulets. They stir the heart like magic, and impel us, as it were, in the sudden wantonness of affection, to shut the little rosy portals of the cherub's soul with a shower of impetuous kisses. The garrulity of age is not like the eager prattling of infancy. The child's artless talk can never weary us. Our ears are as tireless as his tongue.

Timidity in manhood is degrading ; but in a little child it is interesting and lovely, whether he flies from the object of alarm like a startled fawn, or nestles closer in his mother's lap. The coquetry of a woman is vanity and deceit ; but in a child it is mere playfulness and innocent hilarity. Every thing connected with childhood changes its nature. Words of abuse become words of endearment. *Imp* and *rogue*, when applied to an infant, are soft and fond expressions that fall gracefully from the fairest lips.

The drums and rattles of the child are objects of unalloyed delight, but the playthings of the man are grave and terrible delusions. They goad him with secret thorns that rankle in his heart for ever. Envy, avarice, and ambition, mingle their poison in his sweetest cup. Even his superior knowledge is but a source of evil. It surrounds him with temptations, while

* Northcote tells us, that when Sir Joshua Reynolds desired to learn what real grace was, he studied it in the natural movements of children.

it throws a shadow upon all his hopes, and takes off the bloom from life. It is too little for his mind, and too much for his heart.

The child, on the other hand, revels in his happy consciousness of present good, and foresees no future ill. He knows neither weariness nor discontent. "Solitude" to him is sometimes "blithe society," and in the thickest crowds, he is as free and unconstrained as in his loneliest haunts. His ingenuous heart is never chilled by the glance of a human eye, nor can he fashion his innocent features into a false expression. His own eye is as lucid as the breeze-bared heavens. If he reads no "sermon in stones," he sees "good in every thing." He has universal faith. He discovers nothing evil, and sees none but friends. He gives up his whole being to gentle affections, and a sense of unequivocal enjoyment. He is not what cold age would make him, "nothing, if not critical." To him the rise of the green curtain at the theatre reveals a real world. He has ever a tear for the distresses of the heroine, and breathes harder as he gazes, with all his soul in his eyes, on the hero's adventurous exploits. The tricks and conundrums of the clown are never flat, or stale, or unprofitable to him; and he fitly testifies to their merit, when holding his lovely head aside (his cheek as round and blooming as a sun-kissed peach,) he claps his little palms together in an ecstasy of admiration, and then turns to the maternal face, as if assured of her hearty sympathy in his delight.

Here is a specimen of a different style,—and on a very different subject, Dr. Samuel Johnson as a critic :—

One of the most celebrated of the poet-critics of modern times was Doctor Samuel Johnson, who displayed extraordinary sagacity and acuteness in analysing the merits of the kind of poetry that was most allied to his own, but who could never pass beyond that limit, with any degree of safety or success. He could dissect with the most severe precision the unmeaning nonsense and cold extravagances of the writers whom he has so oddly styled the "metaphysical poets," though he could ill appreciate their occasional flashes of genuine inspiration; and no critic has written more sensibly upon the character of Pope and Dryden. But Milton, and Gray, and Collins were out of his jurisdiction. They made an appeal to his taste and imagination that he could not answer. He had no eye for their richly-colored visions, and no ear for their divinest music. He was proof against the "enchanting ravishment" that would "take the prisoned soul" of a more sensitive critic, and "lap it in Elysium." Speaking entirely from his own feelings, he closes his review of *Paradise Lost* with the Gothic assertion, that its perusal is a duty rather than a pleasure. Of the *Lycidas*, which is so full of rich and varied melodies, he was of opinion that the diction was harsh and the numbers displeasing. He once told Anna Seward that "he would hang a dog that read that poem twice." "What then," said Anna, "must become of me, who can say it by heart and who often repeat it to myself with a delight which grows by what it feeds on?" "Die," said Boswell's Bear, "in a surfeit of bad taste."* This is surely, not only what the lady calls it, "awful impoliteness," but a melancholy proof of Johnson's utter insensibility to some of the most exquisite charms of verse. He who could praise so highly the regular notes of Pope, had no ear for the varied movements of Milton's sonnets, some of

* Dr. Joseph Warton has remarked, that "he who wishes to know, whether he has a true taste for poetry or not, should consider whether he is highly delighted or not with the perusal of Milton's '*Lycidas*.'"

which are of such incomparable force and beauty. He has observed, that "of the *best* it can only be said that they are not *bad*." Beattie tells us, Dr. Johnson confessed to him that he never read Milton through till he was obliged to do it, in order to gather words for his Dictionary; and that he spoke "very peevishly" of the "*Masque of Comus*," in which are

Strains that might create a soul
Under the ribs of death.

Of Collins, Johnson's unfavourable judgment is well known. With all his partiality and tenderness for the *man*, he had no feeling for the poet. He thought his poetry was not without some degree of merit, but confessed that he found it unattractive. "As men," said he, "are often esteemed who cannot be loved, so the poetry of Collins may sometimes extort praise where it gives little pleasure;"—and this is said of the finest ode-writer in the language—one of the most poetical of poets. The author of the *Ode to Evening*, a poem that floats into the reader's mind like a stream of celestial music, is pronounced harsh and prosaic in his diction! The high tone of Gray's lyric muse, and his exquisite versification, were lost upon the patron of Blackmore, Watts, Pomfret and Yalden.* When some one spoke to him of Chatterton, he exclaimed indignantly, "Talk not to me of the powers of a vulgar uneducated stripling." What would he have said of Burns?

Dr. Johnson was one of the best of the commentators upon Shakespeare, and yet this is saying little in his favour; "Bad is the best," Pope was one of the worst, which is saying not a little against him. Pope pronounced Shakespeare's style the style of a bad age, and observed, in reference to Sackville's *Gordobuc*, that the writers of a succeeding age might have improved, by copying from his drama a propriety in the sentiments and a dignity in the style which are essential to tragedy. Shakespeare ought to have studied Sackville as his model!! Johnson's remarks and explanations are generally sensible and clear, and his preface to Shakespeare's plays is a noble piece of writing; but he never seems to enter thoroughly into the soul of that mighty poet. He could explain an obscure passage more readily than he could feel a fine one. He who thought a dirty street in London was a more agreeable prospect than the most romantic landscape in the world, and who was so insensible to the charms of music, as to wonder how any man of common sense could be so weak and foolish as to own its influence over his feelings, and could never for a moment give up the reins of his imagination into his author's hands and be "pleased he knew not why and cared not wherefore," was not likely to comment upon Shakespeare in a worthy spirit.

This is from a paper on "False criticism by true poets." Our author in that essay produces so many proofs of the inability of the best poets to judge with any approach to correctness of the quality and worth of a brother poet's productions, that we are tempted to the conclusion that no poet can be a fair and trust-worthy critic. And D. L. R. being undoubtedly a "true poet," we are prepared to see an illustration of this theory in

* The poets in Dr. Johnson's collection were all selected by the booksellers, with the exception of Blackmore, Watts, Pomfret and Yalden, who obtained admittance on the especial recommendation of the Doctor, as he himself tells us in his *Life of Dr. Watts*. Spenser and Shakespeare were excluded!

some of his own criticisms on certain poets held in great estimation among prosaic persons, as for instance, Wordsworth and Tennyson, on each of whom he is somewhat severe. We think, however, that few will feel inclined to quarrel with his estimate of the poetical character and standing of Alexander Pope, as set forth in the following notice of that over-praised and unjustly disparaged poet :—

The character of Pope as a poet has been the subject of long and still continued controversy. Some critics deny that he is at all entitled to the name of poet; and others go into the opposite extreme and place him in the very highest rank. But that he is an admirable writer of some sort or other, if not a true poet, is almost universally admitted. He had, beyond all question, an intellect of extraordinary delicacy and acuteness, and possessed the power of expressing his thoughts with unrivalled closeness, elegance, and precision. But when Byron compared him to Shakespeare, he was guilty of an idle extravagance. With some hesitation regarding the rival claims of Dryden, Pope's may safely be pronounced the first name in the second class of British Poets, the first class consisting of Chaucer, Spencer, Shakespeare and Milton. These four great writers are fairly entitled to such high distinction, because they pierce beyond externals and mere conventionalisms. Their representations of humanity are not local or temporary. They do not describe manners but men. They wrote for all ages and for all countries. Their language alone is not universal; and this was no fault of theirs. The curse of Babel falls with peculiar severity upon the poets, for the fresh bloom of poetic inspiration is always injured in the process of translation. But foreigners, who master our language, however unfamiliar with our manners, can never fail to recognize those truthful delineations of general and everlasting nature which abound in the pages of the four great poets already mentioned. Shakespeare especially has addressed himself to the universal heart. The jealousy of Othello and the ambition of Macbeth are as perfectly apprehended by the intelligent Hindu alumni of an English College in Calcutta, as by the students of a scholastic establishment in the poet's native land. But Pope was too much of a London poet of the Eighteenth century. He is so local and temporary that many of his allusions are now wholly unintelligible even to his own countrymen. His satires, especially, are limited and obscure. It would be almost impossible, for example, to make a native of Hindustan comprehend the greater portion of his *Epistle on the Characters of Women*. But Shakespeare's females are sketched with such miraculous power, and with such fidelity to general nature, that they are recognised in all countries and in all ages by every reader who can understand the language in which his plays are written. Some of the German writers have entered upon an analysis of Shakespeare's characters, with, perhaps, more enthusiasm and judgment than any of our own critics; and even they, who are acquainted with him only through the medium of translation, acknowledge his merits with delight and wonder. But it is hardly fair to Pope to compare him in any way or for a single moment with Shakespeare. No two poets could be more widely separated from each other in the peculiarities of their genius. We ought to contemplate Pope in his own sphere. Let those who think his station at the head of the second order of poets not sufficiently distinguished, consider how few stand above him, and what a long list of bright and honourable names are placed beneath him.

If Pope's verses owe so much to art, they owe still more to inspiration. It must be admitted that he was not distinguished for that inexpressible enthusiasm for truth and beauty, and that profound insight into general nature, which characterize the very highest order of poetic genius. These were not the predominant qualities of his mind. His genius seemed upon the whole better fitted to satisfy the understanding, than to touch the heart, or kindle the imagination: though he was occasionally both tender and imaginative in no ordinary degree. No writer ever compressed so much sound sense into so narrow a compass and with so much elegance and ease. Condensation and perspicuity are amongst his most conspicuous merits. His satire wants breadth, but it never wants point; and no author in the English language has ever turned a compliment with more exquisite ingenuity and grace. His praise was the more valuable because it was always honest. It is said that Alderman Barber gave Pope to understand that he would make him a present of five thousand pounds for a single compliment. But the poet always boasted that he was "no man's slave or heir." It is also reported that he was offered in vain a considerable sum of money by the Duchess of Marlborough if he would give a good character of the Duke.*

Though Pope could not stir the depths of the human heart or raise vehement emotions, he knew how to win our gentler sympathies. The sweetest and most unaffected passages in all his poetry are his domestic allusions. His egotism, when it is touched with tenderness, is inexpressibly engaging. He has not much humour, but his wit is always sharp and brilliant.

His versification has, perhaps, been overrated. It is highly polished, and is unrivalled in mere smoothness; but its uniformity, in a long poem, fatigues the ear. He was over-fastidious, and confined himself too exclusively to certain favourite sounds. There is hardly a line, perhaps, in all his poetry that is novel in the construction. In the sonnets of Shakespeare and the works of still earlier poets, we frequently meet with couplets of which Pope's are but the echo. In studying the versification of other poets, he seems to have been attracted rather by separate lines than to have been charmed with the general effect, and to have erred in reproducing these in too close connection without the intermixture of other sounds. The music is marred indeed by no discord, but it is wearisomely deficient in variety. The notes are sweet enough in themselves, but they are not skillfully blended. There is no "linked sweetness long drawn out," nor does he delight the ear with any musical surprise. When Pope borrows thoughts (and notwithstanding the richness of his own resources, he was a bold and frequent plagiarist) he is generally more successful than in his thefts of sound. He rarely appropriates another poet's idea without improving it.

This, we think, is *true* criticism by a true poet. But lest it should be thought that our author finds it easier to be just to the dead than to the living, let us see what he says of two of the

* The knowledge of these offers of payment for praise might possibly have suggested, however unjustly, the scandal respecting a supposed offer for the suppression of a satire on the Duchess of Marlborough (under the name of Atossa) and the poet's reported acceptance of it. Pope had also in his life-time been accused of receiving a thousand pounds from the Duke of Chandos, and ungratefully returning the kindness with satire. The receipt of this sum he flatly and indignantly denied. He proudly asserted that, if he was a good poet, there was one thing upon which he valued himself, and which was rare among good poets—a perfect independence. "I have never," he said, "flattered any man, nor ever received any thing of any man for my verses."

most popular writers of the day, Charles Dickens and William Thackeray. After speaking with well-grounded admiration of "David Copperfield," the latest work of the former, he says :—

Thackeray's *Pendennis* has been brought to a close about the same time as Dickens's *David Copperfield*, and this coincidence, in point of time, in the two stories will, perhaps, suggest to many critics a comparison between the authors. Not that a comparison can be carried out on equal terms, for Thackeray is, in all essential points, so manifestly inferior to Dickens, that it is impossible to bring them together without making the one writer a foil to the other. Dickens is, unquestionably, a writer of a very high order of genius, and has creative and poetical faculties that place him far above the author of *Pendennis* in the scale of intellect. There is, however, a greater equality in the writings of Thackeray than in those of Dickens. There are frequently whole pages, indeed chapters, in the works of the latter that in our opinion too much resemble some of the objectionable materials that make up the novel of *Pickwick*, which, in spite of a few occasional excellencies, has more sins against truth, nature, and good taste, than any novel that we ever met with from the pen of a man of genuine talent. Thackeray rarely falls so low—but then he never ascends so high as Dickens, and we suppose no one would hesitate to give the preference upon the whole to the most unequal writer of the two. And yet Thackeray's quality is not by any means a tame and dull uniformity; nor is it a uniformity of mere wit, smartness and vivacity. He has sometimes scenes of gentle pathos, though they do not stir the innermost depths of our nature like those of Dickens. It has been said that the author of *Pendennis* is a man of talent merely, and that the author of *David Copperfield* is a man of genius. This is not, we think, a just criticism. Thackeray has written hundreds of pages that none but a man of genius could write. If there were but one order of genius and no degrees of it, we should be obliged to admit that Thackeray is a man of talent only; but there are many kinds and innumerable gradations of genius; and though Thackeray is not like Dickens, a poet in prose, he exhibits a subtlety of observation, and a power of moving the feelings, of which talent alone is utterly incapable.

But Dickens's poetical nature takes him into regions of universality. He describes human nature. Thackeray is more at home in describing particular classes. No one, since Theodore Hook, has given us better pictures of ordinary London life in the upper ranks. He apprehends thoroughly what he actually sees before him, and copies it in colours of reality. He is at home in the accidental or conventional. But Dickens *creates* characters, and some of them will live for ever. They have the elements of general nature in them. They are not mere transcripts of the life of a particular class, or period, or country. Thackeray deals chiefly in light satire,—Dickens in humour. They have both a tendency to caricature, but Dickens rarely offends, whereas Thackeray has brought a hornet's nest about his ears. His caricatures of literary men, especially, have conjured up a host of rather troublesome enemies.

Thackeray's writings make us, upon the whole, dissatisfied with human life. We see too much frivolity and hollowness in *his* world to be in good humour with it. But after the perusal of Dickens,

A sadder and a wiser man,
We rise the morrow morn.

On the whole, we rather doubt whether Thackeray will be much read some fifty years hence, and we are sure that Dickens will.

But the reader, if he is guided in his opinion by our specimens, will, perhaps, begin to think that, as a prose writer, D. L. R. is "nothing if not critical." To show that such is not the case, we should like to draw slightly on the stores of his encyclopedic knowledge of literature and literary men in all ages as exhibited in his papers, *On Genius* ; *Bulwer and the Modern Novelists* ; *On care and condensation in writing* ; *On Literary Men* ; *Poetry and Utilitarianism* ; *Shakespeare's Sonnets* ; *On literary fame and literary pursuits* ; *Imitative harmony* ; *The art of Reading*, &c.

But we must content ourselves and our readers with the following selections from papers on subjects less purely "literary," though not less interesting. Here is a bit of prose-poetry descriptive of the human head and face divine, from an essay on "*Physiognomy*":—

How delightful is the study of the human head ! It is a mystery and a glory ! It at once perplexes the reason and kindles the imagination ! What a wondrous treasury of knowledge—what a vast world of thought is contained within its ivory walls ! In that small citadel of the soul what a host of mighty and immortal images are ranged uncrowded ! What floods of external light and what an endless variety of sounds are admitted to the busy world within, through those small but beautiful apertures, the eye and the ear ! Those delicately pencilled arches that hang their lines of loveliness above the mental heaven, are more full of grace and glory than the rainbow ! Those blue windows of the mind expose a sight more lovely and profound than the azure depths of the sea or sky ! Those rosy portals that give entrance to the invisible Spirit of Life, and whence issue those "winged words" that steal into the lover's heart or the sage's mind, or fly to the uttermost corners of the earth and live for ever, surpass in beauty the orient cloud-gates of the dawn ! To trace in such exquisite outworks the state of the interior is an occupation almost worthy of a god.

A paper on "*the Old Year and the New*" supplies the following sweetly solemn remarks on the most solemn of all earthly themes, *Death*:—

It seems one of the many strange anomalies of the human mind, that it should be so eager to anticipate the future, and yet shrink back with such repugnance from that consummation to which our progress so inevitably leads. We hurry forward as if the end of life were all that we could desire. The vast number and the sociality of our fellow travellers make us forget the goal of our pilgrimage. If any single individual were to feel that he alone in the countless crowd were doomed to certain death, at a fixed period, however remote, he would look forward with a feeling too horrible for words to paint. The uncertainty of each man's allotted time, and the community of our fate, make us less thoughtful and more contented. Though it is not precisely as the poet has observed, that

"All men think all men mortal but themselves,"

yet each individual believes in his own good fortune, and expects a long

lease of life. He flatters himself that he shall survive his associates; that he shall be the last called to the dread account. He has so often escaped before, that he quells every fresh alarm with the hope of a continuation of the same happy chances. The idea of death, as I have already explained, is received with so much difficulty by those who are conscious of the strong impregnation of life through their whole system, that the most trivial objects may call off their attention from the subject. Such is the power of a happy imagination and a healthy frame.

Were we embarked on a voyage to a hostile foreign shore, and knew ourselves condemned to be stripped, tortured, and hung by savage hands, we should think the longest passage too short, and curse the swiftness of our vessel. A few pleasant islands in our course would not drive away the anticipation of the last port. But as we travel towards the narrow house to lie down in darkness and corruption, we are impatient of a moment's delay, and the great object in life seems to be to shorten its duration. It is a happy thing, however, that the mind is thus strangely constituted, and that we are able to close our eyes against unpleasing prospects and turn away our thoughts from the end of all things.

There is no period of the life of man so interesting as its close. A birth occasions less excitement than a death. A new-born human being is rarely an object of particular interest to any portion of mankind, except to those who have introduced him to the world; but the lowliest spirit that ever wore human clay is dignified in the eyes of all men at the final hour. Even the poor fleshly frame which once, perhaps, afforded food for merriment, or a mark for scorn's poisoned arrows, is then regarded with a profound and mysterious reverence. We enter the death-chamber of the rudest peasant with a slow and solemn step, as if we trod upon holy ground. A too abrupt or a too easy manner would seem a sacrilege. We stand near his simple coffin in religious silence, or speak in whispers, as if fearful of disturbing his awful slumber. All ordinary and familiar sounds are like a mockery of the eternal sleeper. His cold clay is hallowed. The mightiest of earthly potentates would approach him with respect. As he lies in his silent state, there is a strange power in his fixed and pallid lineaments. He is the representative of the majesty of death.

The golden portals of palaces fly open at the approach of the King of Terrors, as freely as the shepherd's wicker gate. Neither massy battlements, nor valorous guards, nor the power of the state, nor the prayers of the priesthood, nor the ingenuity of art, nor the magic of beauty, nor the might of genius, nor the holiness of virtue, can protect the domestic hearth from that general and relentless foe. His silent footstep giveth no warning. We know not when he may steal upon us. This uncertainty is an additional horror. We know when the trees are to wither and the flowers are to fade. We prepare for the approach of winter. But death has no stated season. He comes in youth and in age, in sickness and in health. He casts no shade before him. This mighty and mysterious visitor from an unknown world, is more terrible than the simoom of the desert. He blasts the greenest landscape of life at a single breath. Like a dread magician, he enters invisibly our most secret haunts, and strikes us to the ground with his unseen wand.

When the sense of our mortality comes heavily upon the heart, what a pitiful delusion is human life! We look around us on this busy scene, and echo the exclamation of the preacher that "all is vanity!" At such a moment a film is removed from our mental vision, "a change comes over the spirit of our dreams," and that which lately seemed serious and important, we discover to be vain and idle; while all that once charmed us becomes a

mournful mockery. We gaze with pity and with wonder upon those who are still labouring under the same delusion from which we ourselves have awaked; their laughter seems hysterical and their merriment hollow. The feeling in some degree resembles, though it greatly exceeds it in intensity, the effect of closing the ears to the music of a ball room and watching the movements of the dancers. It is recorded of an impassioned Italian poet that he could never look upon such a scene, even with its musical accompaniments, without laughing and shuddering at the same moment. With a similarly blended sentiment of the ludicrous and the sad, do we gaze upon life's giddy whirl, when the golden mist of enchantment evaporates from the scene. When the remembrance of death throws a shadow upon the soul and chills the blood, our only true consolation is the thought of Him who gave us life on earth and decreed that death should but usher us into eternal existence in a brighter and a better world.

And here, in conclusion of our extracts, are two scraps of pleasant writing on a subject more pleasant and regarded with more joyous anticipations than the one just treated of, though the delights of "Going Home" to dear old England should but typify our introduction to scenes of greater and more enduring beauty through the gloomy portals of the grave:—

When I re-visited my dear native country, after an absence of many weary years, and a long dull voyage, my heart was filled with unutterable delight and admiration. The land seemed a perfect paradise. It was in the spring of the year. The blue vault of heaven—the clear atmosphere—the balmy vernal breeze—the quiet and picturesque cattle, browsing on luxuriant verdure, or standing knee deep in a crystal lake—the hills sprinkled with snow-white sheep and sometimes partially shadowed by a wandering cloud—the meadows glowing with golden butter-cups and be-dropped with daisies—the trim hedges of crisp and sparkling holly—the sound of near but unseen rivulets, and the songs of foliage-hidden birds—the white cottages almost buried amidst trees, like happy human nests—the ivy-covered church, with its old grey spire "pointing up to heaven," and its gilded vane gleaming in the light—the sturdy peasants with their instruments of healthy toil—the white-capped matrons bleaching their newly-washed garments in the sun, and throwing them like snow-patches on green slopes, or glossy garden shrubs—the sun-browned village girls, resting idly on their round elbows at small open casements, their faces in sweet keeping with the trellised flowers:—all formed a combination of enchantments that would mock the happiest imitative efforts of human art. But though the bare enumeration of the details of this English picture, will, perhaps, awaken many dear recollections in the reader's mind, I have omitted by far the most interesting feature of the whole scene—the *rosy children loitering about the cottage gates, or tumbling gaily on the warm grass.*

As thus, after my long absence from England, I smoothly glided, as in a sledge, over the level iron road, with such ease and magical rapidity—from the pretty and cheerful town of Southampton to the greatest city of the civilized world—I gave way to child-like wonder and child-like exultation. What a quick succession of lovely landscapes greeted the eye on either side? What a garden-like air of universal cultivation! What beautiful, smooth slopes! What green, quiet meadows!

What rich round trees brooding over their silent shadows ! What exquisite dark nooks and romantic lanes ! What an aspect of unpretending happiness in the clean cottages, with their little trim gardens ! What an air of tranquil grandeur and rural luxury in the noble mansions and glorious parks of the British aristocracy ! How the love of nature thrilled my heart with a gentle and delicious agitation, and how proud I felt of my dear native land ! ' It is, indeed, a fine thing to be an Englishman. Whether at home or abroad, he is made conscious of the claims of his country to respect and admiration. As I fed my eye on the loveliness of Nature, or turned to the miracles of Art and Science on every hand, I had always in my mind a secret reference to the effect which a visit to England must produce upon an intelligent and observant foreigner.

Our task, a not unpleasant one, is now done. We have endeavoured, in the spirit of kindly criticism, to make the reader acquainted or better acquainted with the qualities of David Lester Richardson and his works in prose and verse, as exhibited and represented in this handsome volume of his own selected writings. We have sought to establish or improve this acquaintance, not by an elaborate disquisition adapted to display our own literary powers rather than those of the author under review, but chiefly by letting him speak for himself. We have the better reason for this departure from modern custom in the fact, mentioned in the outset of this article, that the qualifications of the poet and essayist have been discussed at very considerable length in an earlier number of the *Review*. We must submit to have this called a "paste and scissors article"—if any one shall be pleased so to stigmatise it,—content to think that it gives the reader a fuller and fairer idea of its subject than an equal or greater number of pages of the most elegant or eloquent prose from another pen could have presented. To conclude we will record a confession that must stand in the place of the elaborate peroration in which, under usual circumstances, our judgment on the *Literary Recreations* or the "Literary Labours" of D. L. Richardson would be summed up.—While looking over the seven hundred and odd pages of this goodly volume, searching with a critic's eye for beauties and defects, we have learned to think more favourably of the man and his works than we had aforetime thought of him and them.

ART. VIII.—*A Manual of Surveying for India, detailing the mode of operations on the Revenue Surveys in Bengal and the North-Western Provinces. Prepared for the use of the Survey Department, and published by the authority of the Government of India. Compiled by Captains F. Smyth and H. L. Thuillier, Bengal Artillery. Calcutta. 1851.*

SEVERAL years ago, we gave an account* of the great *Trigonometrical Survey*, which was then, and is now, being carried on in India. During the six years that have elapsed since the publication of our article on that subject, we have again and again thought of giving a similar account of the *Revenue Survey*,—a less imposing, but scarcely less important work. The appearance of the “Manual” of Captains Smyth and Thuillier, affords us a favorable opportunity of carrying this intention, at last, into effect: at the same time that it supplies us with much information, which will enable us to do much more justice to the subject than we could have done at any earlier period. We are therefore about to take a “Survey” of this “Manual of Surveying,” and to adopt it as the “basis” of our remarks on the Revenue Survey of India. There will be advantages attendant upon this method, of carrying on simultaneously our notice of the book, and our account of the operations to which the book relates;—but as there is no unmixed good, either in this world, or even in the microcosm of the *Calcutta Review*, it is probable that there may be disadvantages also. It will be for our readers, after the perusal of the present article, to strike the balance of good and evil.

We intend to discuss with all freedom the merits and demerits of the “Manual;” and at the same time, to give a general view, without condescending upon details and technicalities, of the objects of the Revenue Survey, and the methods adopted in conducting its several operations. The former object may be of some service to the students who are to make use of the Manual, and may, perhaps, not be without its use also to the authors or compilers of it; especially as we understand that the edition is already exhausted, and that a second will soon be required. If we at all succeed in the latter object, our reward will be the reflexion that we have suggested some new thoughts to our readers, and given them definite ideas, instead of vague ones, on some points on which it is well that

* *Calcutta Review*, Vol. IV., Art. 3.

intelligent men should be informed. Perhaps we are not the less likely to succeed in this latter object, from the circumstance of our belonging to that class, for whose instruction we write. It is probable, that we may be able to give them the information that they require, and in the form in which they require it, better than could be expected of a professional surveyor, who would with difficulty sympathize with the ignorance of his readers, would suppose that they must know more than they actually do of subjects with which he has so long been so familiar, and would be apt to imagine that the details, which are so important to the carrying on of the work, are fitted to be of more interest than they really are, to the ordinary laical reader.

It is very obvious that a service in which so many persons are employed, and in which so many and so various duties are performed from day to day, imperatively requires that there should be a book of this sort, to assist those who are intending to enter into the department, to qualify themselves for the duties that are to devolve upon them, and to assist those actually employed, in constantly improving their qualifications. But it is not only to the *employés*, actual or prospective, of the department to which the authors belong, that the book may be useful. A large class of civilians are officially required to come in contact with the survey operations, and to them the Manual will be indispensable. Moreover, there are multitudes of people in India, that have occasion, frequently, to execute surveys of roads, rivers or grounds. Every officer in the army *may*, at some time, be called upon to do so; every indigo planter, and indeed, every resident in the Mofussil, must frequently have occasion to survey fields and villages; and it may be greatly to his advantage to be able to do so correctly. To these classes, therefore, and probably to many others also, this Manual of surveying will be of essential use.

The Manual consists of five *parts*, and an appendix; and it will give some initial idea of the completeness and comprehensiveness of the work, if we just state the general titles of these parts. They are as follow: I. *Geometry and Trigonometry*. II. *Surveying instruments*. III. *On Surveying*. IV. *On the Khusrah, or native field measurement*. V. *Practical Astronomy, and its application to Surveying*. We proceed to notice these subjects in their order; dwelling at greater or less length upon each, as the intention of our article may direct.

The adage that "there is no royal road to mathematics," seems destined to acquire fresh confirmation from every attempt

that is made to simplify the elements of Geometry, beyond the point of simplification that they received at the hands of Euclid. We have had occasion to see several attempts of this kind, and none of them have struck us as being, in any considerable degree, successful. The one before us is as good as most of its predecessors, and no better. If therefore it were put forth with the view of answering the purpose of a full treatise on the elements of Geometry, to the supercession of Euclid, we should censure it as a failure. But as it is given with no such ambitious pretension, but only professes to contain a series of those propositions that are of most general use in survey operations, our censure is, in great measure, disarmed. It may well, indeed, be a matter of doubt, whether it would not be better in the long run to send all aspirants for employment in the survey department, directly to Euclid, and require of them that they should thoroughly master the first six books of his Elements. But as the authors must have come into contact with a large number of such aspirants, and must know well their talents and their opportunities of study, it is fitting that we should defer to their judgment, on a matter, regarding which they have so good means, and regarding which we have no means at all, of forming a correct opinion. Instead, therefore, of recommending that the geometrical propositions should be excluded altogether from the next edition, as we confess our own feelings would prompt us to do, we shall content ourselves with offering a few hints, by which the propositions, as they stand, may perhaps be made somewhat more useful to the students of the present edition, and which we are confident that the authors will receive in good part, and take into consideration, while preparing their next edition for the press.

There are few mathematical subjects that have given rise to a greater amount of discussion than the doctrine of parallel lines. It must be admitted that Euclid's method of treating the subject is neither so elegant nor so rigid as might be desired; but we are by no means certain that any of the methods proposed as substitutes are better than that which they are designed to supersede. The inelegance of Euclid's method consists in this, that for the purpose of proving the doctrine of parallel lines, he introduces a proposition (I. 16) which is immediately superseded and rendered useless, after that doctrine is established—a scaffolding which is not a part of the edifice, but is yet indispensable to the erection of it. Now the elegance of a train of geometrical reasoning consists in nothing more than in its introducing no such scaffolding, but in making

every proposition of permanent value, as part of the structure itself. The comparative want of rigidity consists in the assuming, as an axiomatic truth, a proposition which, to most minds, is not axiomatic (12. ax.), but seems rather to require demonstration. We are of opinion that Legendre has succeeded in establishing the doctrine of parallels in an unexceptionable manner, (although this is not the opinion of many mathematicians); but his method is confessedly of too abstract a nature to be available at the early stage of a mathematical course, at which parallel lines must be introduced. With this exception, we believe that all writers who have deviated from Euclid's method have, overtly or covertly, made some assumption of which the axiomatic nature may be questioned—as, for example, that the distance between parallel lines is constant—that two straight lines, parallel to the same straight line, cannot pass through any point—or that if one straight line be at right angles to each of two straight lines, every line at right angles to the one of these lines, shall be at right angles to the other.

The assumption made by our authors is, that the interior angles made on one side of a line falling upon two parallel lines, is equal to some constant quantity. This assumption is made tacitly, and then it is easily proved that this constant quantity must be two right angles;—as thus,—the interior angles on one side of the incident line, are either equal to, greater or less than, two right angles; but as the lines on one side of the incident line “are not more parallel than” their continuations on the other side of the incident line, the interior angles on both sides must be equal to, greater or less than four right angles, according as those on one side are equal to, greater or less than two: but these four angles are equal to four right angles, since they are two pairs of adjacent angles, made by one line standing upon another line: consequently the two interior angles are equal to two right angles. Q. E. D. Now every step in this demonstration is unexceptionable, provided we admit the tacit assumption on which it is based: but it does not appear to us that this assumption is at all admissible. We have stated that hitherto no attempt to dispense with some assumption has been quite successful: and it would be altogether unreasonable to look for a successful attempt in so unpretending a geometrical course as that before us: but we do think that our authors should avoid so violent an assumption as that we have pointed out, and that the students of the work should be warned what it is that they are required to admit.

In the course of our fault-finding “Survey,” we come next to the tenth theorem, which is thus enunciated, “*In any triangle*

A B D, the half of each side is the sine of the opposite angle." Now this is far too loose an enunciation. Of course our authors mean, that the half of each side is to the radius of the circumscribed circle, as the sine of the opposite angle is to the trigonometrical radius. But as this meaning, although implied in the demonstration, is not explicitly pointed out even there, the enunciation will almost certainly mislead the tyro, who will be almost sure to suppose that one of the sides, and not the radius of the circumscribed circle, is assumed as the trigonometrical radius.

We may also notice an error that occurs in the course of the demonstration of this theorem, in which it is said, that the *chord* of an arc is the measure of the angle which that arc subtends at the centre. And we may express our doubts, as to the legitimacy of the third corollary of the next theorem. The theorem is that of Euclid, "Straight lines which join the extremities of equal and parallel straight lines towards the same parts, are also themselves equal and parallel;" and the corollary is, "It is also plain that the opposite sides of a parallelogram are equal, for it has been proved that $A B C D$ being a parallelogram, $A B = C D$, and $A D = B C$." Now, however true this conclusion be, it does not seem to us to be logically deducible from the premises. Because a particular figure has its opposite sides both parallel and equal, it does not seem to follow immediately, that every figure, which has its opposite sides parallel, has them also equal. The demonstration of the seventeenth theorem, which is *Euc. vi. 1.*, is only applicable to the case of triangles, whose bases are commensurable. "Let any aliquot part of $A B$ be taken, which will also measure $B D$." But what if $A B$ and $B D$ be to one another as the side of a square is to its diagonal? Where shall we get a line that shall be an aliquot part of the one, and shall also measure the other?

Having thus freely found fault with several of the demonstrations contained in this little sketch of the elements of geometry, it is but fair that we should state that several others seem to us very neat and ingenious. We would mention, for instance, the sixteenth theorem, which is *Euc. III. 36*, and which is very well demonstrated by the aid of proportion, which Euclid, of course, could not use in his third book. The twenty-first theorem (*Euc. vi. 19*) is also very neatly proved.

This may be the proper place to point out what, we conceive, ought to be introduced somewhere into the book, viz., a short treatise on the doctrine of proportion. We do not think that it ought to be taken for granted, that those, for whom so elementary a treatise is designed, are so familiar with this doctrine, as to be acquainted with the propositions, that if four

quantities are proportional, they are proportional also when taken alternately ; and that the rectangle contained by the lines, which form the extremes of an analogy, is equal to the rectangle contained by the lines that form the means.

We pass over the chapter on logarithms, merely remarking that the explanation is sufficiently clear ; but that the notation adopted for expressing the logarithm of a decimal fraction is inaccurate, the negative sign being put before the logarithm, as if it affected the whole of it, instead of being placed, as is usual, over the index, to shew that it affects it only. Also the rule for finding the logarithm of a number not in the tables is inaccurate.

Here also we would have had introduced a lesson on the method of subtracting, by adding the arithmetical complement of the number to be subtracted. We can testify, from large experience, the great saving of time, and diminution of the chances of error, that result from the constant use of this method, in extensive logarithmic calculations, such as must occur in the conduct of a large survey.

The fifth, sixth and seventh chapters of this first part, headed respectively "*Trigonometry*," "*Mensuration of planes*," and "*Useful Problems in surveying*," are much fuller than the preceding chapters, and seem to us almost all that can be desired, in order to equip the young surveyor for a most important part of his work. He, who has any enthusiasm in his profession, will do well to make this part of the Manual his constant study. By modifying the problems in every possible way, and solving examples in numbers, both with and without logarithms, he will acquire such familiarity with the matter, both in its principles and its details, that he will be able, with some interest, to act in accordance with the rules which he thoroughly understands, and, if necessary, to depart from those rules, and act with confidence on his own judgment, in cases to which the rules are not applicable. Thus he will have the double advantage over his fellows, that he will take pleasure in the ordinary routine work, which is mere drudgery to them ; while he will be fit for work which they are unable to perform, and for responsibility which could not be imposed upon them.

As our object is a thoroughly practical one, we may point out ~~one or two things, which might still further improve this part.~~ And first, we do not think that the ambiguity of what is called the ambiguous case in plane Trigonometry, is noticed with sufficient prominence. In the first place, it is stated, that "if any three parts of a plane triangle be given, (one part being a side,) any required part may be found by construction and calculation."

Now this, though of course generally true, is not so universally. The only allusion that we find to the ambiguity, is in an example, when the subject is rather hinted at than explained. "In the triangle ABC, there is given $AB = 240$, the angle $A = 46^\circ 30'$, and $BC = 200$; to find the angle C *being acute*, the angle B, and the side AC." It may be quite true, that the surveyor in the field will generally know whether the angle to be calculated is to be acute or obtuse; but this will not always be the case: and even this advantage is sacrificed when the calculator and surveyor are different persons. The ambiguity ought, therefore, to be prominently brought to the calculator's notice, that he may be always on the look out for it, when he has to do with cases in which it may occur; otherwise, he will be liable to commit blunders, which may vitiate many results, and introduce into a whole survey, confusion that will not easily be got rid of.

We would suggest also, that the method of finding the angles of a triangle, when the three sides are given, by means of the proposition, $bc : (s-b) (s-c) = \text{Rad}^2 : \text{Sin}^2 \frac{1}{2} A$, ought not to have been omitted in such a treatise. It is so much more direct than the method of dropping a perpendicular, and is, moreover, so well adapted to logarithmic calculation, that it seems to us decidedly preferable to the other method.

The last of the problems seems to require a passing notice. It is, "*to determine the area of a piece of ground, having the map given, by weight.*" The method consists in drawing parallels on the map half an inch apart, and others at right angles to them. Thus the whole face of the map is divided into squares. Of these a certain number will be complete, and those through which the boundary passes will be imperfect. First, all the squares must be carefully weighed, any part of which contains any portion of the ground to be measured, and then all the portions of the outer squares that lie beyond the boundary must be cut off, and the remainder weighed. Thus the first weight will be to the second, as the area included within all the squares originally weighed is to the required area. But the first and second terms of the proportion are ascertained by the weighing; the third is known by the scale of the map, and consequently the fourth can be found at once. Now it appears to us that it would be much better, instead of destroying the map by crossing its surface with pencil lines, and cutting off its margin close by the boundary, to copy its outline through tracing paper on which the squares had been previously drawn, and then to proceed with the tracing paper as if it had been the map. The same tracing paper might be afterwards used for a smaller map. But we should imagine that it would be

quite sufficient, excepting for maps on a very small scale, to lay upon the map a sheet of transparent paper divided into squares of a quarter or an eighth part of an inch in the side, and simply to count the perfect squares, and then the imperfect squares, and add to the number of the former half the number of the latter, assuming that on an average the boundary would bisect all the squares that it cut. We do not think the error, that could result from this assumption, would be greater than that which might be expected to result from the most careful weighing, even with a fine balance. But if greater accuracy were desired, it might be secured by diminishing the sides of the squares on the tracing paper. If these were made a sixteenth, or even a twelfth part of an inch, no considerable error could be committed by estimating, in the way we have indicated, the quantity of land contained in a map, unless the scale of the map were very small indeed.

Part II. treats of "Surveying instruments." It gives clear and distinct explanations of the construction and use of the various instruments employed, and will be very useful to the surveyor. We know not any suggestion that we can offer for the improvement of this part; and therefore pass it over with only stating, that we have been much struck on its perusal, with the amount of ingenuity displayed in this humble but important branch of applied science. It is the boast of our jurists, that there is no injury that man can receive from the hands of his fellow-man, which the English law does not afford means of redressing; and we may say, that there is no purpose, which the surveyor, or the experimenter, or any body else, can desire to effect, which our instrument-makers do not provide him with an instrument for effecting. Our readers may remember the account we gave of the original commencement of the great trigonometrical survey, when the only instruments available were, a chain, that had been intended as a present to the emperor of China, and a transit instrument of a most rheumatic constitution. Now, it would appear from the description of our authors, that there is almost an *embarras de richesses*, and that the difficulty will not be, as then, to find an instrument that will do the work, or even to find one that will do it well, but to choose from all those that will do it well, the one that will do it best.

We have said, that we intended to offer no suggestion for the improvement of this part of the work; but it has just struck us, that to non-professional people like ourselves, its value would be considerably enhanced by the addition of a short chapter, "on substitutes for instruments," or what sailors

might call *jury instruments*. It is useful to the professional man to be able to measure an angle to the tenth part of a second ; but it is not without its use to the non-professional traveller to be told how, with the aid of a small shaving glass and a staff, or (if he be too anti-sybaritic to add these luxuries to the Napierian allowance of a “bit of soap”)—by the aid of the back of a silver watch and a sword-scabbard, he may measure the height of an inaccessible object, within two or three feet. We are sure that Captains Smyth and Thuillier could very easily point out an abundance of such contrivances, to assist the pursuers of knowledge under difficulties.

The third part treats “of Surveying,” and seems to us to be admirably executed. Our authors evidently know very well, that the excellence of a surveyor consists, not in genius or in any flashy characteristic, but in good talents, united with steady perseverance and constant pains-taking. They therefore condescend upon the minutest details in their instructions to the young surveyor, and urge constantly upon him the importance of doing every thing always in the best manner. From our notions of what a survey ought to be, we should say that the expression, “well enough,” should be religiously excluded from the surveyor’s vocabulary, and that it should be impressed upon him, that nothing is *well enough* done, if it be possible to do it better. There is never any saving of time, in the long run, by doing any work in a careless, and consequently inaccurate, manner. And in this department especially, the man who really does most work, is the man who does his work best, not he who gets over the ground with the greatest rapidity. The two following rules we venture to quote, as of very general application, not to surveying operations only, but to almost all the matters in which men are occupied :—

9th. The surveyor should never allow himself to get into the habit of making his observations, whether angles or bearings, in a careless manner, under the impression, that a small error in one observation, will, perhaps counterbalance itself in the next ; he will find it more profitable in the end, to make *ten* careful observations during a day’s work, than a hundred careless ones. The same remarks hold good for chain measurements.

10th. No observation, memorandum, or note, should ever be recorded on slips of paper, and rejected, or be thrown aside as unimportant or useless ; it is too commonly the practice to do this ; but the time may come, when the surveyor would hail with delight the recovery of the remarks or calculations, however roughly noted, which he had before thrown away.

These are golden rules, and in proportion to the scrupulosity with which he adheres to them, or rather in proportion to the conviction, matured into an unalterable habit, which constrains him to adhere unconsciously to them, will be the surveyor’s success in his work.

We can scarcely express too strongly our approbation of this part of the work. The instructions are full without being very tedious : and the surveyor, who ponders them, will be prepared to meet all the difficulties that are likely to arise in the course of his work, to surmount those that can be surmounted, and not to be delayed or discouraged by those that are the necessary result of the imperfection of the methods prescribed and the instruments employed, and which he is consequently not expected to surmount.

It is in this part that we get a full detail of the various operations that are carried on in connection with the revenue survey of India, an account of the extent of country that has been hitherto surveyed, of that which remains still to be surveyed, and of the cost of the survey, past and prospective. From the description given, it would appear that the methods adopted for carrying on the survey are of the best possible description. The great object is, by means of a good system of division of labour, to secure that no one be employed in doing aught that he is not qualified to do, and no one be employed in inferior work, who is qualified for superior. In order to effect this, it is of course necessary that a methodical and energetic mind should regulate the whole ; and such a mind we should suppose, from the "Manual," is the present head of the revenue survey, one of its authors. We can only give the most general notion of the mode in which the survey is conducted.

First of all the settlement officer, or revenue collector, is charged with the duty of marking out the boundaries of the Parganahs on the ground, and furnishing to the surveyor a rough sketch called a *Thak-bust*, or demarcation map. With this sketch in his hand a man goes round the boundary of the Parganah, fixing stations at its various points, and clearing the ground for the measurement of lines and the observation of angles from station to station. Another man, or set of men, are set to perambulate the boundaries of each village within the Parganah. All this is preliminary to the survey, properly so called. The revenue collector ought to be a year in advance of the surveyors, and the "line-cutters" must at least keep well ahead of them, so that no delay may occur. The surveyor's duty is then to run a line from station to station, and to ascertain the length and direction of every part of it. As this line cannot follow the windings of the boundary exactly, it is carried as near to the boundary as possible, within or without ; and off-sets are measured to the boundary itself. Every measurement, whether of length or direction, is entered in a field book. When the surveyor has gone quite round the Parganah, and returned to the point whence he set out, it is evident that on transferring

all his lines to paper, in proportionate lengths and in the right directions, the plan ought exactly to "close," or the last line ought to end where the first began. This it will never do exactly, but it must do so within certain limits of error, and if these limits be exceeded, every effort must be made to discover where the error has occurred; and, if these efforts fail, the work, must be done over again. If the amount of error be within the limits, it must be apportioned amongst the several lines and angles.

While the Parganah-boundary-surveyor has been going on with this process, several parties of village-boundary-surveyors have been performing precisely the same process with respect to the several villages within the circuit. It is evident that the work of each one of these surveyors also must "close" with itself; and not only so, but the aggregate of the villages must just fill up the Parganah.

If the fields belonging to a village be tolerably large, and with moderately straight and well defined boundaries, it seems to be the duty of the village surveyor to measure and define them, and to fill up all the topographical information, necessary to give a complete view of the face of the country, its trees, its buildings, and its crops. This is done both by entry in the field book, and by the construction of what are called "chudder maps," which present a general idea of the character of the country. But if the fields be very small, and their boundaries very irregular, the survey of them is handed over to a native official, who conducts it in a much ruder way than that adopted in the main survey. This is called the *khusrāh* measurement; and, as it is always checked by the general survey, since the whole ground measured must always fill its boundary, it is sufficiently accurate for all practical purposes.

Such is the whole of the work performed in the field. Sufficient data are obtained for the construction of accurate maps of the district surveyed; and the preparation of these maps is the duty of a portion of the establishment during the period when field operations are suspended by the weather. The survey department is required to furnish in duplicate a village map, on the scale of one mile to an inch, and a Parganah map on the scale of four miles to an inch, for every village and Parganah surveyed. These are constructed from the *chudder* maps and field books of the surveyors and *khusrāh* measurers. These Parganah maps are again built up into Zillah maps on the scale of sixteen miles to an inch. It is also required of the department to construct for government all the maps that they may require for any purpose, civil or military, such as the records stored up in the Surveyor-General's office enable them to construct.

All this seems very short and simple in the description ; but it is necessarily a tedious, and in many cases a difficult process. The village boundaries are so irregular, and the limits of error allowed are so small, that the surveyor requires to have all his eyes about him. As moreover a great part of the details of the work is done by natives who do not understand English, it may be conceived that the process of constructing a map from their field-books is not a very attractive amusement. " With such an extent of native agency (say our authors) as is employed on all the surveys in India, it is a great object to plot all work in the field. It saves an immensity of labour, and the chances of accuracy are greatly increased. By the aid of the drawing board much can be sketched in, and the first impression of a locality is not lost, but at once represented on the plan. Field-books kept by natives ignorant of English may better be imagined than described. It is always difficult for any surveyor to understand fully a field-book kept by another person ; but where novices on ten or fifteen rupees per mensem attempt to keep such records, and hurry on at the railroad pace of a revenue survey in the present age, we do not envy the person who has to protract from them. The native surveyor, who brings in his board well filled, displays at once what amount of work he has done ; and a superintending officer is able to see at a glance what confidence is to be placed on the topography so defined."

We have omitted to mention that another thing is necessary in order to make any of these maps complete, that is, the determination of the meridian line. For all that we have said hitherto, a map might lie in any direction ; but whenever the direction of any one line upon it is fixed, then the direction of the whole of the lines, and the proper bearings of every point, are ascertained. It is therefore necessary to ascertain the direction of the meridian line at some place within the district surveyed, or rather at several places, in order that one ascertainment may be a check upon the others. This is done in each Parganah survey by astronomical observations. For the village surveys, it is sufficient to ascertain it by the compass, allowing for variation.

We should also have stated that it is the duty of the survey department to calculate the area of each field, village and Parganah. In the North West Provinces these computations are the basis of the revenue settlement. In the Lower Provinces, where the permanent settlement obtains, this is not necessary ; but the survey is not the less useful in these provinces, as in its absence much of the land is apt to be lost

sight of altogether, small estates being swallowed up by large ones. Then when the Jumma or revenue on these estates is not paid, and the estates are put up for sale, it is found impossible to put the purchaser in possession.

To give an idea of the extent to which the revenue survey in this presidency has proceeded, we cannot do better than present the following extract, which exhibits clearly both what has been done, and what remains to be accomplished :—

From the year 1822, when the Revenue Surveys first commenced, up to the year 1830, the rate of progress at which the operations proceeded were extremely limited. Only 3,020 square miles, a little more than half a square degree, had then been performed in seven years, with ten Officers employed in the department—the annual rate of progress of each Surveyor ranging from fifty square miles to 338 as a maximum: and at this rate it was estimated that, the area of Bengal and the North-Western Provinces being 310,000 square miles or 77 square degrees, would require 481 years to accomplish.* The Officers employed in those days, however, had little or no assistance; and the duties, performed then by the Revenue Surveyor himself, are now entrusted to competent assistants and sub assistants, with large native establishments under them, whilst the Surveyor acts as a Superintendent over the whole as described in a former Chapter; the result of which has been, that during the last twenty years, or since 1830, the whole of the North-Western Province Districts, all Behar and Orissa, and a considerable portion of Bengal Proper, have been completed as detailed below† No less than 46 districts of unsettled estates, amounting to 101,519 square miles, and 13 districts of Bengal and Behar, perpetually settled

* Account of the present system of Survey, &c., by Captain Herbert, Deputy Surveyor General. Calcutta, 1830.

† UNSETTLED DISTRICTS SURVEYED.

1. Panceput.	25. Banda.
2. Hurianah.	26. Allahabad.
3. Delhi.	27. Goruckpore.
4. Rohtuck.	28. Azimghur.
5. Goorgaon.	29. Jaunpore.
6. Suharanpore.	30. Mirzapore.
7. Mozuffurnuggur.	31. Benares.
8. Meerut.	32. Ghazeepore.
9. Booolundshuhur	33. Jolun.
10. Allyghur.	34. Dehra Doon.
11. Bijnour.	35. Buttianah.
12. Moradabad.	36. Sohagpore.
13. Budaon.	37. Ramghur.
14. Bareilly.	38. Ajmere.
15. Phillibeet.	39. Mairwarra.
16. Shajehanpore.	39. Total N. W. P.
17. Muttra.	
18. Agra.	40. Pooree.
19. Furruckabad.	41. Cuttack.
20. Mynpooree.	42. Balasore.
21. Etawah.	43. Cachar.
22. Cawnpore.	44. Jynteah.
23. Futtehpore.	45. Chittagong.
24. Humeerpore.	46. Assam.

SETTLED DISTRICTS SURVEYED.

47. Midnapore.	54. Behar.
48. Hidgelee.	55. Purneah.
49. Hoogly.	56. Tirhoot.
50. Shahabad.	57. Maldah.
51. Sarun.	58. Bhaugulpore.
52. Patna.	59. 21-Pergunnahs.
53. Monghyr.	59. Total Surveyed

DISTRICTS UNDER SURVEY.

1. Rajshye.	5. Goalparra.
2. Beerbhoom.	
3. Baraset.	5. Total.
4. Mymensing.	

DISTRICTS FOR SURVEY.

1. Nuddea.	10. Dacca.
2. Jessore.	11. Dacca Jellalpoore.
3. Burdwan.	12. Backergunge.
4. Bancoorah.	13. Sylhet.
5. Dinagepoor.	14. Tipperah.
6. Moorshedabad.	15. Bullooah.
7. Bogra.	
8. Rungpoor.	15. Total.
9. Pubna.	

estates, yielding an area of 53,295 square miles, have thus been surveyed in detail and mapped, leaving twenty districts of Bengal, comprising 57,990 square miles, to be taken up, five of which are now in hand.

In addition to this, the newly acquired territory of the Punjaub and Cis and Trans Sutledge have come under the Revenue operations, and afford a fine field of employment for the department.

The total area of the British possessions in India, including Scinde, Punjaub, Jullundhur Doab and Tenasserim, has been carefully estimated at 800,758 square miles, and the Native States at 508,422 square miles, making a grand total of 1,309,200 square miles, as the area of British India. This vast superficial extent of territory is confined within a length of 11,260 miles of external boundary. The *inland* frontier from Tenasserim round by the Himalayan range of mountains to Cape Mouze in Scinde is 4,680 miles, whilst the *coast* line from Singapore round the Bay of Bengal, up the Malabar Coast to Kurrachee, is 6,580 miles. Of the Native States about 200,000 square miles are already surveyed, leaving about 308,442, almost all wild hilly jungle and of little value, to be taken up.*

To this we shall only add that about fifteen and a half lakhs of rupees have been already expended, and that the work still to be done may be expected to cost about eleven and a half lakhs—a very moderate sum certainly for the survey of such an immense empire, and better expended than many of the sums that go into the disbursement side in the financial accounts of many governments.

It may be well here to point out, that while the village maps can be built up with sufficient accuracy into a Parganah map, and the Parganah maps may even be joined without much inaccuracy to form a Zillah or district map, these last will not, without important modifications, fit into one another, so as to form a general map of India. All the operations of the revenue survey are conducted on the hypothesis that the earth is an extended plane. Now although this supposition will not deviate far from the truth when it is applied to a very small portion of the earth's surface, it will be altogether inaccurate when we have to do with a large extent of territory. Now as one very important object of the revenue survey is to fill up the outlines ascer-

* Of the Native States some of the following are the most conspicuous:—

<i>Estimated Area in Sq. Miles.</i>		<i>Estimated Area in Sq. Miles.</i>	
Oude, (Lucknow)	23,738	Bhopal	6,764
Mysore	30,886	Rewah	9,827
Hydrabad, (Nizam's).....	95,337	Protected Seikh and Hill-States.	15,188
Joudhpoor	53,672	Oodepore	11,614
Gwalior	33,119	Sattara	9,061
Bhawulpoor	20,003	Kolapore	3,445
Golab Singh's Territories	25,123	Cutch	6,764
Berar, (Nagpore)	76,432	Kotah	4,339
Jeyapore, &c.	15,251	Indore	4,467
Bickaneer	17,676	Travancore	4,772
Jaysulmeer	12,252	Ulwar	3,573
Baroda and Kattyawar.....	24,249	Bhurtapore	1,978
Jhansee	15,570		

tained by the great trigonometrical survey, to put sinews and flesh upon the colossal skeleton which that survey constructs, it is evident that all the results of the revenue survey must be subjected to a Procrustean process in order that they may be available for this purpose. This however is not, we believe, done in this country. If we mistake not, the district maps are transmitted to the Court of Directors, and undergo in London that transformation which is necessary to fit them for the duty they have to perform in affording the data for a correct map of all India. We may take this opportunity of noticing that the great trigonometrical survey is going on rapidly and successfully, and that we may hope ere long to see as complete a map of India as there exists of any country in the world. This will be a noble achievement; and although it may not be hailed with so much jubilation as attended the conquest of Scind, when the Governor-General told his "brethren and friends," that "*my* armies have resumed this province from Beloochí usurpation, and opened the navigation of the Indus to all the world;" or so much as attended the conquest of the country of the Koh-i-núr—yet will its consequences be highly important, and substantial glory will accrue to those by whose enterprise it will have been accomplished.

There is a vast deal of matter in this part that we must pass over without any notice. But we must make an exception in favor of the seven chapters, which have been contributed by "Baboo Radhanauth Sikdar, the distinguished head of the computing department of the great trigonometrical survey of India, a gentleman whose intimate acquaintance with the rigorous forms and modes of procedure adopted in the great trigonometrical survey of India, and great acquirements and knowledge of scientific subjects generally, render his aid particularly valuable." (Preface, p. viii.) These chapters are clear and accurate, distinguished by a severity of style which contrasts very favorably, in our estimation, with the somewhat inflated diction of a considerable portion of our English-educated youths, and which tends to confirm us in an opinion that we have long ventured to entertain, notwithstanding its being opposed by high authorities, that mathematical studies are well fitted to produce a salutary influence on the national mind in this country.

The fourth part of the manual is, as we stated at the outset of this article, on the *khusrah* or native field measurement. This measurement is resorted to in all cases in which the fields are very small and irregular, and is effected by a distinct class of men from those employed in the professional survey. Till a

short time ago, the only instrument employed by these Amins was a rod or rope ; but many of them have lately been furnished by Capt. Thuillier with compasses, which enable them to estimate angles and bearings with tolerable accuracy. This must add greatly to the value of their work. These measurements are done by contract ; and it seems to be admitted that the rates allowed are too small to enable any man to live by the trade. But the means of eking out a livelihood are not far to seek. It must have been to this class of officials that the facetious Panch Kouri Khan alluded, when he described the Campaswallas as demanding an offering each morning to propitiate the genius of the magnetic needle, and to make it traverse, in order to which a certain amount of silver was deemed indispensable. That there may be occasional instances of oppression on the part of the subordinates in the regular survey is very probable ; but with them such instances are the rare exception. With the Amins they must of necessity be the rule. *Il faut vivre* is their motto. Now how is this state of things to be remedied ? By increasing the contract rates, and enabling the contractors to live honestly ? We know not whether this would not increase the evil. At present an Amin goes to a village, attended by his Mohurri, his cook, his two rope-carriers, his peada, his chatta-bearer, &c.—in all perhaps a party of a dozen. This party he quarters upon the village until his work is done ; and every member of the party has an implied license to make the most of his position. But double the Amin's income, and he will double the number of his attendants : and each attendant, being now the *attaché* of a doubly great man, will of course double his exactions, and so, we take it, these exactions will increase by a law as regular as that by which gravitation diminishes with the distance of the attracting mass, and will be directly as the square of the functionary's official income !

It must be acknowledged, however, that the Zemindars and village officials are to blame for a considerable part of this exaction. It is their duty to point out the boundaries of the fields, and to afford all needful aid to the Amin. But it would be a sad sacrifice of their dignity were they to respond to his call without a becoming delay of a week or a fortnight. Meantime the Amin and his party are kept waiting in idleness ; and what then ? *Il faut vivre* ;—and then it is such a nice amusement for our idle men to gather a few rupees ;—and then the villagers are all persuaded that the Amin has it absolutely in his power to increase or diminish their rents at his pleasure, by making his needle point in one direction or another ;—and then—*il faut vivre*. Whereas on the other hand, if these village potentates

would enable the amin to set about his work at once, he would soon find it to be for his interest to finish his measurement with as much despatch as might be compatible with the required amount of accuracy, and to be off to the next village to repeat the same process there.

These exactions are however no laughing matter to the poor villagers, who if they could speak French would certainly answer the amin's *il faut vivre*—with a *nous ne voyons pas la nécessité*. But what can be done to prevent it? Oppression is the *genius loci*, the *dharma*, as our Bengali friends express it, of the land; and until this *dharma* be reversed, every man who has it in his power will oppress every man in every way that he can.

In this part there is an interesting, and somewhat amusing chapter on the standard, or rather the standards, of lineal and superficial measure in India. The following sketch is evidently taken from the life :—

In some of the local offices the standard measure is simply a matter of tradition, and, when applied for, the Nazir of the Court is directed to report on the correct length of the *hath* or *luggee*. This he does with the utmost simplicity by holding up his own arm, from the elbow to the tip of the little finger, sometimes adding that as he is a small made man, one, two, or four fingers' breadth must be added on. The Collector on this gives an order for a roobocary to be sent to the Surveyor Sahib, to the purport of the standard in use in his District being "one *hath*, four fingers," and the *luggee*, or *russee*, being so many of such lengths. This vague and uncertain information, however, should not satisfy a surveyor. Such data for such a purpose are manifestly absurd, and yet it is daily in practice, in many districts in the Lower Provinces, where Amins are sent out to *investigate* into special cases connected with the Civil and Judicial Courts.

The fifth part of the manual is on "Practical Astronomy, and its application to surveying." It is contributed by Babu Radhanath Sikdar; and the remarks that we made on his other contributions to the volume are nearly as applicable to the one now before us. We should have liked a little more detail, and somewhat fuller explanations, which might have been given without materially increasing the size of the volume. Moreover, we have a decided preference for *reasons* over *rules*; and should have liked very much to have had the spherical triangles, to which the computations refer, exhibited to us, and explanations given of the mode of solving them, instead of merely directions to add the cosecant of one arc to the cosine of another, and to regard the result as double the tangent of a third. We have little doubt that the Babu would himself have preferred this method of doing his work, had he not considered himself precluded from adopting it by the space

allotted to him, or by the previous acquirements of his readers.

The appendix consists of several useful tables, to which it is not necessary for us to refer.

And now we have brought our review of this volume to a close, and have incorporated such notices as we thought might be generally interesting of the objects, methods and present state of forwardness of the revenue survey. We would only add in conclusion that it appears to us that it would be well, in the next edition, to divide the work into two volumes, which might be sold either together or separately. A long time must elapse before a man, who requires to study the first chapter of the first part, can have any occasion for much that is in the following parts; while many readers might start from a point far in advance of the beginning; and many of those who begin with the beginning can scarcely be expected ever to reach the end. If this recommendation be acted upon, we may add to it the suggestion that a short treatise on spherical trigonometry would form as appropriate an introduction to the second volume as that on plane trigonometry would form to the first. The introduction of such a treatise would give far greater freedom in the treatment of various matters relating both to terrestrial and celestial measurements.

We have now only to express our conviction that—despite the errors that we have pointed out in no cavilling spirit—the *Manual of Surveying for India* is a good and a seasonable book, reflecting much credit on its authors, and capable of being very useful to all persons employed in, or seeking to be employed in, the department for whose use it is specially intended, and to many others who are unconnected with that department.

NOTE BY THE EDITORS.

From a press of matter, although we have considerably exceeded our usual limits, we have been reluctantly compelled to postpone several Articles and Notices, intended for publication in our present issue. In connection with certain apparent discrepancies of opinion, we would request our readers to bear in mind the Eclectic character of the *Review*. By comparing, for instance, the first article of the present number, with former articles on "Our Judicial System and the Black Acts," on "The Penal Code," and "Revelations of the Police and Courts," they will obtain a much clearer view of what our Judicial System really is, than if we had advocated one side only, however ably.

THE
CALCUTTA REVIEW.

ART. L.—*The History of England during the thirty years' peace : 1816—1846. By Harriet Martineau. 2 Vols. London. 1850.*

THIS is one of many excellent works for which we are indebted to the thoughtful and large-minded enterprise of Mr. Charles Knight. It is, in effect, a continuation of the Pictorial History of England, but without the illustrations; which, although they may have promoted the immediate popularity and success of a work, which had no need of such extrinsic aids, have, in some measure, prevented the history of Craik and Macfarlane from taking its proper place among the great literary performances of the age. There is a prejudice against picture-books and picture-papers. It would be difficult to persuade any one, that the letter-press of an illustrated Journal is ever meant to be read. It is supposed to be thrown in as a mere make-weight. And so it is very much with books. The belief is, that the illustrations are the main reliances, and intended to be the main attractions of the work; and that the printed page is the mere setting of the precious stone, the literary vehicle or frame-work, which it is necessary to employ. Even, in a lesser degree, the insertion of maps and portraits detracts something from the *prestige* of excellence in an historical work: they impair the gravity and solemnity with which the performance should be surrounded, and give something of a tawdry and meretricious air to the whole. That the "Pictorial History of England" would have been more highly esteemed as a literary work, if it had not been the *Pictorial* history, is hardly to be questioned. Mr. Knight has done wisely, therefore, in stripping the continuation of the work, which he had originally designed himself to execute, of that profusion of extrinsic aid and ornament, which made the world sceptical of the solid worth of the history, written by Craik and Macfarlane. Even the portraits and the maps, which appear in the volumes now before us—a compromise perhaps demanded by the serial style of publication—seem to lighten and impair the standard character of the work. But it is a book of a really solid and substantial character, meant not for the drawing room table—but the library shelf.

It is not permitted to us to review, in their general aspects, Miss Martineau's two volumes of history. It would be a sufficiently pleasant task, if it came within the legitimate sphere of our critical labors. We could hardly have found, we could hardly indeed have wished, to find a more suggestive work, or one more provocative of much talk *de omnibus rebus*, political and social. Historians have now, fortunately, begun to discover, that the real history of a country is not to be found in records of the achievements of military commanders, or the intrigues of political partisans. The social progress of a great people is no small matter. The "dignity of history" is a mere pompous sham. The best materials of history are not to be found in *Hansard's Debates* and the *London Gazette*; nor are its most noticeable worthies, those who fight great battles, make long speeches, or diplomatise at foreign courts. A brief paragraph, at the end of the history of a reign, was once considered sufficient to embody the names of the most remarkable literary and scientific individuals, who "flourished" in the course of it. It was never thought that

— the tapestry of this great world
Is wrought by thinking, not by striving men,
Who do but hang the work up when 'tis done.—

The influence of these silent labours upon the progress of events was barely recognised by the old school of historians; still less was it seen, how even smaller every day matters, the commonest things in common-place life, in as much as they form the habits and mould the tastes of the people, often contribute more largely to the growth of the most important political events, than anything that takes shape in the cabinets of statesmen, or the camps of military commanders. History is, every year, becoming "more social and less nice." Something of this may be attributable to the altered character of events, in the case of such a work, as that which is now before us. A history of the thirty years' peace, is a very different thing in itself from the war annals of a Napier or an Alison. But in how different a spirit have the same events been treated by a Hume and a Macaulay! The difference is not in the subject, but in the writer. "Happy," it has been said—"Happy is the country whose annals are a blank." But, in truth, the annals of a country never are a blank—though the mind of the annalist may be. The mind of the annalist may be such a blank, as to discern nothing worthy of record in the quiet march of social improvement; but where there is social improvement, there is no "blank;" and where it is not, there is nothing "happy."

Miss Martineau's history of the "Thirty years' peace," is

mainly a history of social improvement. But if there were no warlike episodes in it, it would not have come within our reach, as reviewers. The last thirty years have been years of peace in England, but they have not been years of peace in India. In this history of the "thirty years' peace," there are the annals of some great wars. But they have been fought upon Indian soil. "India is the nursery of captains," said uncle Rowland, in Sir Bulwer's Lytton's story of the *Cartons*. It has never been permitted to us to know a thirty years' peace in this portion of Her Majesty's dominions: and Miss Martineau has been compelled to pause in her quiet journey along paths of domestic improvement, to turn aside, to trace the progress of great and sanguinary wars in remote regions of the habitable globe—the war in Afghanistan, the war in China, and the war in the Punjab.

It is to the account of the first of these wars, that we purpose to direct the attention of our readers. There seems to be a fatality attending all Indian episodes, introduced into the narratives of European historians. We have pointed out the errors of Alison and the errors of Macfarlane. Miss Martineau is scarcely more exempt from carelessness, than her predecessors. It is strange that writers, otherwise pains-taking and accurate, should blunder so immensely, where they come to record even events of notoriety, which have occurred on Indian soil. There are, doubtless, some incidents in the histories of all our Indian wars, so involved in obscurity, or so overlaid with controversy, as to render their elucidation difficult, by one who has only access to the ordinary public sources of information. But we find European writers blundering over ordinary events, which a reference to a file of papers, to the *Asiatic Journal*, to the *Annual Register*, to the *Parliamentary Debates*, or any other readily available authority, would enable them to set in their true light before the public.

Why this should be, it is hard to say. India is not a less important position of Her Majesty's dominions than Canada. Yet Miss Martineau can write, with sufficient correctness, about Canadian affairs. Perhaps, when we find ourselves on North-American ground, we are not quite so critical; smaller errors of fact may perhaps escape us. But there is obviously much greater elaboration of all the Canadian portion of the story, a much more earnest entrance into the subject, a much broader recognition of its importance. It is probable, that the interest, which attaches to the personal character of Lord Durham, a true political hero and a real man, and, perhaps, some individual likings and associations may have impelled her to

rush, with her whole heart, into the story of the political struggles, which convulsed that important colony. She certainly writes, as one who has both thought and felt; and we have nowhere seen so interesting and so intelligible an account of colonial administration, as in the volumes now before us. We wish that the Indian chapters had been written equally well.

We regret Miss Martineau's deficiencies; but we cannot say that we are surprised at them. She only follows in the path, trodden by the most distinguished of her countrymen. Look at the annals of the two Houses of Parliament, during the last few years; and it will be seen that the affairs of Ceylon and Borneo, have excited far more discussion than those of the whole interest of Hindostan. There are two reasons for this. In the first place, mis-government in an Indian dependency is much more rare than in a Crown Colony; and in the second, the mis-government of a Crown Colony is something much more stimulating than the mis-government of an Indian dependency. It is not to be supposed, that all the eloquent gentlemen, who have held forth in the House of Commons on the fertile subject of the delinquencies of Lord Torrington, care two straws for the people, whom he is said to have oppressed. But an attack on the Government of Ceylon is an attack on the Colonial Office. All the absurdity about shooting a priest in his robes is just so much *ad captandum* stuff, intended to excite popular indignation against the existing Government. Perhaps, a majority against ministers, no uncommon thing in these days, may, somehow or other, be screwed out of it. At all events, the ministers may be denounced as the encouragers of guilt and the screeners of the guilty. It becomes, indeed, an English, not an Indian question, and as such it rises in importance. The Crown Colony always has this advantage over the Indian dependency;—it has more direct connexion with party politics. Hence, perhaps, the greater importance, which is attached to the administrator of the Crown Colonies, in the pages of such a writer as Miss Martineau.

With reference to the "Commercial Mission to Kabul," Miss Martineau says, "it will be evident that here everything depended on the sincerity of Dost Mahomed and the judgment of Captain Burnes, about both of which different opinions existed at the time. Subsequent events have thrown light on the character of Captain Burnes's mind. The goodness of his heart and of his purposes is not doubted; but it appears that he was *confident in pursuing a policy of over-caution*, and credulous while following up a track of suspicion." Now this is a great deal more antithetical than

true. If there was anything that Burnes was not, it was *over-cautious*. It was his want of caution that brought upon him the censures of the Supreme Government. He exceeded his instructions; and Lord Auckland ordered Macnaghten to write him a long letter, expressive of his Lordship's extreme disapprobation. Burnes sent Leech to Kandahar; and he offered the Sirdars money, in the name of the British Government, if they would detach themselves entirely from the Persian alliance, and oppose the advance of Muhammad Shah. The Kandahar chiefs were, at that time, flinging themselves into the arms of the Kujjar prince; and Burnes saw the advantage of severing a connexion, which threatened to defeat all the designs of the British Government to the West of the Indus. A certain amount of latitude had been allowed to him; but, it appears, this offer of money to the Kandahar Sirdars was something far in excess of the legitimate license, which the commercial agent was permitted to exercise. Accordingly, Burnes himself was severely censured, and his offers were repudiated by the British Indian Government. But Lord Auckland was sufficiently candid to acknowledge sometime afterwards, that the best authorities in England were of opinion that the measures, which had drawn down the severe censures of the Supreme Government of India, were the very wisest that could then have been adopted. Burnes complained bitterly that the over-caution of Lord Auckland had so embarrassed him, that he could absolutely do nothing to raise up a barrier against encroachment from the westward; and he often said, with prophetic truth, that the Indian Government would be compelled to expend crores of rupees, where lakhs might have sufficed. This, indeed, was the grand error. The Affghan war was the result of it. Statesmen, better acquainted with the politics of Persia and Afghanistan, had long before recommended the expediency of subsidizing Dost Muhammad, and still adhere to the opinion, that this would have been the wisest and most successful course. A little money, judiciously spent in 1838, would have rescued India from that enormous absorption of its financial resources, which brought the country to the verge of ruin, and from which it is now slowly recovering. It is not easy to number the years, which that one fatal error has thrown British India back, in the march of social improvement. It is, because Burnes was *not* over-cautious, and because Lord Auckland was, that the Afghan war was launched into perilous existence, and British India defrauded of so many crores of rupees.

Miss Martineau seems to have a profound contempt for the Russo-phobia, which, at one time, was so prevalent among our Anglo-Indian Statesmen. But she has not measured with

much correctness the real character of Russian policy in the countries of Central Asia. The Russo-phobia was greatly exaggerated; but the amount of the exaggeration is to be determined by a reference, not to the designs of the great Muscovite power, but to its capability of carrying those designs into execution. The will to work us grievous mischief was never wanting; but the power was. We do not believe that the designs of Russia were ever misrepresented. The game, which Nicholas and his ministers were playing, was a deep one. Miss Martineau says, "among these contradictory accounts, it has never been settled what was really true—whether the Russians, moving about in Afghanistan, were political adventurers, as well as commercial Government agents; whether the British agents were justified in their suspicions, or were deceived; and whether Russia was betrayed by her own servants, or foully attempted to betray us." This question, indeed, never has been settled; but we believe, that there is very little doubt about it. The Russian Government was not betrayed by its servants; but those servants were betrayed by the Russian Government. Vickovich, for example, was no mere political adventurer. He was a tool in the hands of the Russian Government; and, as soon as it was convenient to sacrifice him, he was remorselessly sacrificed by Nesselrode. There is a brief biographical sketch of the man in Mr. Kaye's "History of the war in Afghanistan," which shews, that the antecedents of his life peculiarly fitted him to become an instrument in the hands of a designing Government, to be employed in any political dirty work, or (as Mr. Kaye more discreetly calls it) "dubious service," that might suggest itself to the mind of the minister. He had ruined himself in early life. He had launched into liberalism at the University of Wilna, had taken part in a Polish demonstration, and his career as a student had been cut short by a compulsory journey to Orenburgh, where, in the colony of the Ural, he had expiated his offences, as an exile of the better class. Here he distinguished himself considerably as a linguist; and, having been employed on some surveying expedition and visited the country between the Caspian and Bokhara, he appeared, when an agent was wanted to proceed to the court of Dost Muhammad, to be on every account precisely the kind of man to whom such a mission might be safely trusted. He was accordingly sent to Kabul. He did the work entrusted to him wisely and well; and, when he had accomplished the objects of his mission, he proceeded to St. Petersburg, to lay an account of his proceedings before Nesselrode; but the

minister had, by this time, discovered how deeply he had embroiled himself with the British Government, and it was expedient, therefore, to repudiate the measures of his agents. What followed, we give in the words of Mr. Kaye:—"On his arrival (at St. Petersburg) full of hope, for he had discharged the duty entrusted to him with admirable address, he reported himself, after the ordinary formality, to Count Nesselrode; but the minister refused to see him. Instead of a flattering welcome, the unhappy Envoy was received with a crushing message, to the effect that Count Nesselrode knew no Captain Vickovich, except an adventurer of that name, who, it was reported, had been lately engaged in some unauthorized intrigues at Kabul and Kandahar. Vickovich understood at once the dire portent of this message. He knew the character of his Government. He was aware of the recent expostulations of Great Britain. And he saw clearly, that he was to be sacrificed. He went back to his hotel; wrote a few bitter reproachful lines; burnt all his other papers, and blew out his brains."

Having dismissed the Russian question, and the siege of Herat, Miss Martineau goes on to say, "the most decided act of interference in affairs beyond the province of the British, was in the Governor General's proclamation of the 11th of October, published to the Bengal division of the army at Simlah on the Jumna." Now we need scarcely tell any one of our Indian readers, that the Governor General's proclamation was issued, not on the 11th, but on the 1st of October; that it was published, not to the Bengal division of the army of the Indus, but to the whole of India, or rather to the world; or that geographers do not ordinarily place Simlah upon the Jumna.

A few lines further on, we come upon the following:—"It had often been said before this time, and it has earnestly been repeated since, that the way to have peace in India is to send out soldiers, rather than civilians, as Governors-General; and certainly this declaration of war goes far to confirm the saying. It is scarcely conceivable, that a great military ruler could have done an act so rash, as Lord Auckland did in thus proclaiming war. He was, no doubt, wrought upon by military advisers, in a way that a military Governor General would not have been. He knew less than a soldier would have done, what such a war imports; and no soldier could easily have proved himself less of a statesman, than the whole conception of this Afghan war proved its responsible author." There is a mixture of truth and error in this. The history of

India abundantly testifies that military rulers are the most pacific. There were no more sincere lovers of peace than Lord Cornwallis, Lord William Bentinck and Lord Hardinge—none ever more anxious to devote themselves wholly and solely to the internal administration of the country. But we honestly believe that Lord Auckland was scarcely less a lover of peace, than the soldier Governors, whom we have named. But Miss Martineau truly says that, had he been a soldier, he would not have been cajoled into the Afghan war. He *was* cajoled into it, but not, as the historian supposes, by military advisers. The advisers, who “wrought upon” him, were all civilians. Though one of them, the son of a distinguished soldier, is a military writer of first-rate ability, and is set down, in the published papers relating to Afghanistan, as a “Lieutenant Colonel,” we have always believed him, like his brother secretaries, to be a member of the Bengal Civil Service. Lord Auckland’s advisers were his *civil* secretaries. Sir Henry Fane, the Commander-in-Chief of the Indian army, is believed to have been anything but a promoter of the Afghan war. When the war was determined upon, he recommended that it should be prosecuted with adequate military means, and was at issue with the Governor General regarding the strength of the force to be sent across the Indus; but he did not favour the policy, and was glad to escape all connexion with it, by turning his back on India for ever. The misfortune was, that Lord Auckland, in 1838, was absent from the neighbourhood of the Calcutta Council Chamber. Surrounded by irresponsible advisers, men of more talent than discretion, he yielded his own judgment to that of others, and embarked on an enterprise, of which he never cordially approved. Had his legitimate advisers, the members of the Supreme Council, been at his elbow, we should have heard nothing of the Afghan war.

Passing over Miss Martineau’s somewhat confused account of the career of Shah Sujah, and her highly-wrought picture of the march of the army of the Indus to Kandahar, we come upon the somewhat startling assertion, that “the siege and storming of Ghuzni were admirably managed.” Sir John Keane managed the siege of Ghuzni so well, that he left his siege guns behind him at Kandahar. The Engineer officers blew in the gates by an explosion of powder-bags; and Sale, Dennie, Warren, and other lion-hearted officers, led their men up gallantly to the assault. Sir John Keane was made a peer for this achievement; and it is now the universal opinion, that a peerage was never earned before or since, in so astonishing a manner.

There is an error of a somewhat similar kind in Miss Martineau's account of Sale's campaign in the Kohistan, in the autumn of 1840. "Colonel Sir Robert Sale," she writes, "found ' that treaties and agreements with the chiefs of the mountain districts of Kohistan, which was under his charge, were absolutely vain—the inhabitants thinking bad faith a virtue in such a cause. They harboured the Dost, and played tricks for him, and fought with him; but the gallant Sale put them down, finally, as every body thought, on the 2nd of November, little dreaming what was to happen on that day twelve months." Now on the 2nd of November, everybody thought, not that we had put the Kohistanis down, but that they had put *us* down. Sale was never in charge* of the Kohistan country. He went out at the head of a force which was directed by Sir Alexander Burnes: and such was the state of affairs, on that 2nd of November, that Burnes thought that there was little left for us, but to shut up ourselves in Kabul and there stand a siege.

In the next paragraph, there is a confusion of the Eastern and Western Ghilzyes, very important in itself and very detrimental to historical truth; but almost venial in a writer, who has spent all her life in the Western World. The retrenchment of the allowances of the Eastern Ghilzyes, and Lynch's attack upon a fort in the Western Ghilzye country, are mixed up together, as events bearing upon the same after-transactions—the closing of the passes between Kabul and Jellalabad, in October 1841.

The next error is not quite so pardonable; for it relates to the date of Lord Ellenborough's appointment to the Governor-Generalship of India. After stating that, during the first months of 1841, the Ghilzyes were "watching only for an opportunity," the historian goes on to say that, "during this season of suspense, there were changes going on behind them, which would have materially altered the position and the prospects of the British at Kabul, if a speedy fate had not been preparing for them on the spot." The changes, here spoken of, are explained to be the change in the sovereignty of the Punjab, and the change in the vice-royalty of India. The historian then proceeds to say, that "it was an anxious summer for the British at Kabul." From all of this, the reader would naturally infer, that it was in the spring of 1841, not in February, 1842, that Lord Auckland (who was not, as Miss Martineau says, "recalled") was succeeded by Lord Ellenborough.

The description of the summer of 1841, which then follows, would be more applicable to the winter of 1841-42. There

seems, indeed, to be some confusion in the writer's mind, as to the progress of events in Afghanistan, throughout these years. It was after, not before, the outbreak of the insurrection that the soldiers were "worn and weary with incessant watching," and "the officers grew moody and disheartened." A more palpable error, however, is contained in the following passage—
 'Early in October, the second son of Dost Mahomed, that Akbar Khan, in whose hands the fate of the British in Afghanistan was henceforth to be, came down from the north, and posted himself in the Khúrd-Kabul pass, ten miles from the city; that pass being the only way back to Hindustan. General Sale, who would have been in his winter quarters at Jellalabad before this, but for the treasons and skirmishes in the mountains, now set forth to clear this pass.' Now there is nothing more certain in all history, than that Akbar Khan, instead of arriving at Kabul early in October, did not arrive till the end of November. He was a long way off from Khúrd-Kabul in October, and had nothing whatever to do personally with the opposition thrown in Sale's way, between Kabul and Jellalabad, whither, it may be added, Sale was *not* going to throw himself into winter quarters. It was originally intended, that his regiment should retire to Hindustan.

We come now to the outbreak of the insurrection, to the memorable 2nd of November, when the clouds burst over the heads of the Kabul garrison. "On this night," says Miss Martineau, "once more and for the last time, Sir Alexander Burnes's Afghan friends came to him with warnings, and this once more in vain. He was as confident as ever. The next morning, while he and his brother and Capt. Broadfoot were at breakfast, the street filled, and the cries of the crowd told, too well, what they came for. Burnes was sure it was only a riot, and sprung into the balcony to address the people. The enemy burst in. Broadfoot killed six with his own hand before he fell. All three were murdered on the spot; though Shah Sujah sent word, some hours afterwards, to Sir Wm. Macnaghten that all was well with Burnes. Shah Sujah also said, that if the rebellion was not over that night, he would burn the city the next day: but he neither did that, nor anything else, but ordering the guns of the citadel to fire, which they did all day, with no apparent effect." There are some inaccuracies in this statement: that Burnes and his companions were sitting at breakfast when the sound of the insurrection smote upon their ears, may be overlooked as a bit of objectiveness, giving something more of form and colour to the picture. Burnes was not at breakfast. He was roused from his bed by

a visit from the Wuzir, and had barely time to dress himself before the angry crowd had assembled around his house. This is of little importance. It is more important, however, that it should be known that Shah Sujah really did something more to suppress the insurrection at the outset, than order guns to be fired from the citadel. He was, indeed, the only man, who did anything on the morning of the 2nd of November. He sent out some companies of Campbell's Hindustani regiment into the city to suppress the disturbance; and one of the Shah's sons (Futteh Jung) went with them. Various accounts of what they did have been given by different writers. It was said by the earlier journalists of the insurrection, that they lost 200 men: but this is extremely doubtful. Others have said that the prince and his followers only made a show of fighting against the people, giving out, at the time, that they were with the insurgents. Be this as it may, it is certain that they were sent out into the city with orders to operate against the rioters; and whether they did much, or whether they did little, they did more than was done by our own people. Our own military commanders did not send out a file of men against the enemy, on that November morning. The Shah certainly may claim credit for having done all that was done.

"For two months after this," continues Miss Martineau, 'all was unmitigated wretchedness. General Sale was hoped for, looked for;—but he did not come. He could not: and his wife and comrades were told, it was because his soldiers had forsaken him. General Nott never came, also because he still could not. Ammunition failed; and what was, if possible, worse, food failed.' We believe it was never believed by Lady Sule, or the Kabul garrison, that Sale's soldiers had forsaken him. As for Nott, he never tried to come; and it may be doubted, whether even Maclaren's effort can be considered a very genuine one. Ammunition never failed at Kabul. It was always abundant. General Elphinstone said at one time it was going fast; but it was so plentiful that it was served out to the camp-followers, before the cantonments were finally abandoned. Ammunition was very scarce at Jellalabad; but at Kabul, the military commanders had really no such excuse.

We pass over Miss Martineau's account of the retreat from Kabul; and come to the retributive measures of the British Government. "Up to the moment," says Miss Martineau, "of Lord Ellenborough's arrival in February 1842, Lord Auckland had done everything in his power for the rescue of the force, so rashly left in Afghanistan. Troops were sent in abundance; but the difficulty was to get them through the

‘ defiles, by which the country must be entered. No man yet
 ‘ had ever traversed the Khyber Pass, in the face of our enemy;
 ‘ —Nadir Shah himself having purchased a passage from the
 ‘ tribes which guard it; but General Pollock now accomplished
 ‘ it, with extreme difficulty and risk, and by means of a strong
 ‘ excitement of the valour of the troops.” It is hardly true
 that Lord Auckland did everything in his power to rescue the
 garrisons left in Afghanistan, or to pour troops into the country.
 Lord Auckland did as little as could be done, and that little
 he did reluctantly. He may have had, and indeed, we believe,
 he had, good reasons for his moderation. He knew the Court
 of Directors to be opposed to the continuance of the war, and
 he knew the Queen’s ministry to be opposed to it. He was
 unwilling to embarrass his successor, by initiating measures of
 which the new Governor might not approve. It required no
 little magnanimity and self-denial so to abandon a policy of
 which he was the responsible parent: but there are few
 people now, who believe that his measures, for the retrieval of
 our losses in Afghanistan, were distinguished either by wisdom
 or by vigour, or that the head of the Indian Government was
 then equal to the magnitude of the crisis which had arisen.

After speaking of the marvels which General Sale had performed at Jellalabad, the historian proceeds to say that “the
 ‘ earthquake brought up Akbar Khan, who had finished every-
 ‘ thing elsewhere, and now came to drive out the last of the
 ‘ infidels:”—but Akbar Khan had come down to Jellalabad,
 before the earthquake, on the 19th of February; and the
 greatest of all marvels is, that he took so little advantage of
 the injuries which this great convulsion had wrought upon the
 defences of the place. The garrison expected to be attacked
 immediately; and the inactivity of the enemy, in this conjuncture,
 surprised them almost as much as the earthquake itself.

Having carried Pollock’s army to Kabul, Miss Martineau
 says, “the Kuzzilbashes, before mentioned, as of Persian descent
 ‘ and hostile to Dost Mahomed and his tribe, were our best
 ‘ friends throughout; and it was by their aid that the prisoners
 ‘ were brought back, when actually on their way to hopeless
 ‘ captivity beyond the Indus.” Now the Kuzzilbashes only
 helped to save the prisoners, in so far as that Sir Richmond
 Shakespeare took a party of them with him, when he went out
 in advance of Sir Robert Sale’s detachment, to meet the prisoners,
 who were “not actually on their way to hopeless captivity
 beyond the Oxus,” but “actually on their way” to General
 Pollock’s camp. The prisoners had effected their own liberation,
 before the detachment was sent out to meet

them. They might have been intercepted and carried off into hopeless captivity, if the detachment had not been sent out to meet them: but they were certainly not on their way to the Oxus, when the Kuzzilbashes went out to their rescue.

"The Kuzzilbash quarter," continues Miss Martineau, "was therefore spared, in the destruction of Kabul; and so was the Balla Hissar. The rest was laid in ruins; and the first part, that was blown up, was the bazaar, built in the reign of Aurungzebe." Now, it is very certain, that Kabul was not destroyed, was not laid in ruins by Pollock's army. That the great bazaar was destroyed is true. It was destroyed, because Government had decreed that some lasting memorial of our visit to Kabul should be left behind: and the bazaar was deemed the best place to bear the marks of retribution, because the remains of the murdered Envoy had there been publicly exhibited. But, so anxious was General Pollock not to lay the city in ruins, that he directed his chief engineer, Colonel Abbott, the present Governor of Addiscombe, not to fire the bazaar, or even to use gunpowder for its destruction, lest the surrounding buildings should be destroyed. Abbott found it impossible to execute the work entrusted to him without the use of gunpowder; but it was used with the greatest caution; and the explosions caused no damage to any other buildings, than those of the bazaar. That there was some unauthorized destruction is true. In spite of all the precautions that were taken, our camp-followers set fire to some of the houses of the city; but the damage done was by no means extensive—and the only wonder really is that Kabul escaped as it did.

"General Nott," continues Miss Martineau, in the next sentence of her history, "came up from Kandahar, victorious; though the reinforcements, sent him from Seinde, could not reach him, but were actually obliged to turn back, after having traversed the Bolan Pass." But the reinforcements did reach him. A detachment of troops under General England was driven back from Hykulyze; but it advanced again, with increased strength, a few weeks afterwards, and made good its march to Kandahar. When this detachment met with the reverse at Hykulyze, it was not on its way to Kandahar, but was waiting for reinforcements coming up in the rear. Why it should have advanced at all from Quettah, it is not easy to determine. England, at this time, had no intention of going beyond Hykulyze, unless Nott sent a force to meet him; and Nott had no intention of sending a force to meet him, though terribly in want of the treasure, ammunition, and hospital stores, which England was to convey to him.

After landing the two forces safely at Kabul, Miss Martineau says, "the new Governor General had, mean time, by proclamation, ordered the British forces to evacuate Afghanistan." But the proclamation was not issued till the 1st of October, a fortnight after Nott and Pollock had met at Kabul.

What follows is somewhat better :—

In the beginning of November, the British troops left the country, which they should never have entered, and where some of them finally disgraced our military reputation, by acts of rapine and cruelty, in an expedition in Kohistan, which the Affghans themselves could never have surpassed. It was a fitting end of one of the most iniquitous wars on record—The public despatches and private journals of the time speak, in set terms, of the honour of our arms being avenged, stains wiped out, and so forth : but this is cant. The honour of our arms, among the Asiatic nations, as every where else, is absolutely implicated with the goodness of our cause. It is questionable whether, in their barbaric view, our cause had ever before been thoroughly bad—indefensible as have been some of our wars there in the eyes of Christian nations. But in this case, we were wholly wrong ; and our honour cannot be now—never can be—retrieved in the estimation of the Affghans. For purposes of our own—foolish purposes, as it happens—we invaded their country, forced on them a sovereign whom they hated, and who had actually no party among them—invited aggression from them by our weakness and supineness—melted away under their aggression—and at last poured in upon them with overwhelming forces—blew up their strongholds, razed their cities, hunted their mountain population "like vermin," burning, slaying, and ravaging—and then withdrew, giving them leave to place upon the throne the very ruler we had come to depose. We may deceive ourselves with vain glory about our honour ; but, as long as tradition lasts in Afghanistan, our name will be a mark for hatred and scorn. The men are gone who did this ;—Burnes, M'Naghten, the military advisers who left their bones in the passes beyond the Punjaub, and Lord Auckland himself. But it does not become those at home who were misled by them—it does not become the most irresponsible of us—to forget this great folly and crime, or to attempt to cover it over with cant about the glory of our arms.

There is a mixture of truth and error in this. The atrocities alleged to have been committed in the Kohistan (McCaskill's expedition to Istariff) may almost be called fabulous. Considering the amount of provocation, the forbearance of the troops is really very creditable to them. That no excesses were committed, we do not venture to assert. When was a stronghold like this ever carried by assault, without the commission of some excesses ? There was everything here to exasperate the troops, and to stir up the most savage vindictive feelings of our nature. But the necessary horrors, resulting from the total destruction of a place, in which a large number of the women and children of Kabul had taken refuge, do not appear to have been aggravated by much wanton cruelty, on the part of our troops ; whilst, on the other hand, many acts of chivalrous

humanity relieved the terrors of the picture. Weakness was, for the most part, respected; and, if there were some cases of barbarity, they were only such as have disgraced all wars in all parts of the world. Nor is it true that the army returned to the provinces, "burning, slaying, and ravaging, as it went." Some have said, that it went too hastily out of the country, and did not perpetrate mischief enough.

Here is a sketch of Lord Ellenborough and his successor:—

He fraternized with the military in a way very extraordinary in a civilian, and published his military sympathies, so as to give more offence to one set of men than gratification to another. He made showy progresses: and acted out vehemently his idea of Indian Government—a Government of coaxing and demonstration, rather than of business-like gravity and silent energy. The East India Directors, who held the opposite idea of Government, used their power—a power adverted to so rarely as to have been nearly forgotten—of recalling the Governor-General, without the acquiescence of the Administration. The Ministers admitted in parliament that they had remonstrated strongly against this exercise of the Directors' privilege; and it was plain that they were extremely annoyed by it. Though the vote was unanimous, they considered it as great an "indiscretion" as any known in history. It was certainly a serious matter to bring forward the anomaly of the double authority at home: but all anomalies must come into notice sooner or later; and the question was, whether the present occasion was a sufficient justification. The Directors thought it was: the Government thought not.

The character of Lord Hardinge is here hit off very felicitously in a few lines:—

Sir Henry Hardinge was a soldier, whose military qualifications were indisputable. But he was even better known as a man of a calm, earnest, grave disposition, sound sagacity and conscientious thoughtfulness, excellent habits of business, and most genial and benevolent temper. In him the qualifications of the civil and military ruler seemed to be so singularly united, that he appeared to have been in training all his life for the office he was now to fill. It was on the 21st of April, 1844, that Sir R. Peel announced in Parliament the recall of Lord Ellenborough; and Sir Henry Hardinge arrived in India in the following July.

Of the conquest of Scinde, Miss Martineau says:—

Scinde had been annexed to our dominions during Lord Ellenborough's term of office. The agreements we had made with the Amirs, at the commencement of our Affghan enterprise, were not likely to last; and by 1842, we find the Governor-General threatening one of the older generation of the Amirs with deposition, if he did not pay up his tribute, and prove himself faithful to the British. There was reason to suspect the Amir of correspondence with our enemies; and their tribute had fallen into arrear. Sir Charles Napier, who commanded the troops in Scinde, was authorized by the Governor-General to make a new treaty with the Amirs, by which the British authorities believed that equivalent advantages were secured to the two parties. The Amirs, however, thought

otherwise,—estimating the privileges of their hunting grounds along the Indus more highly than the British ruler conceived of, when he stipulated that we should have liberty to cut wood for our steamers along the whole line of the river banks. The treaty was forced upon them; they were irritated; their Beluchi followers were furious, and drove out the Resident who had negotiated the treaty and his few followers from their fort, compelling them to take refuge on board a steamer in the river. The attack was made on the 15th of February. The next day, Sir C. Napier went after the Amirs, to see what they were about, and found them encamped with 22,000 men—seven times the amount of his own force. Early in the morning, he brought his small force to bear upon their great army, routed it, and captured all the enemy's artillery and ammunition, their standards, and their camp, with all that it contained. The Amirs yielded up their swords; and after another victory, Scinde was ours.—Sir C. Napier has never concealed the fact, however, that his conquest of Scinde was determined on before the attack on the Resident, and would have taken place just the same if that had never happened. The battle of Meani was a great one, valorously and skilfully conducted; and the thanks of Parliament were voted to Sir C. Napier and his coadjutors in consideration of it; but we feel no more moral satisfaction in the contemplation of these events, and the thoughts of our new territory, than in considering our Affghan campaign. We have no business in Scinde: and it is a matter for the inhabitants, and not for us, to decide upon, whether they prefer the Government of the Amirs, or the “mild sway,” which we recommend to them as that of the British Government. Probably the Beluchis know too much of our invasion of Affghanistan, and of the condition, in which we left it, to have much belief in the mildness and justice of our sway. Meantime, a residence in Scinde is a sort of purgatory to Anglo-Indians. The people are manifestly hostile, and the soil and atmosphere most unfavourable to health. Mutiny, the most dreaded of all events in India, was occasioned in 1844, by the mere order to march to Scinde; and a regiment was ignominiously broken up, on account of its refusal.

The Gwalior victories are then described, but with no great knowledge of the subject:—

We have not done yet with these melancholy Indian victories, and the questionable rejoicings over them at home. The people of Gwalior, in the Scinde dominion, in the heart of our North-western possessions, were disturbed and riotous. We were bound by treaty to give aid in such a case, under certain requisitions:—we now interfered without such requisition, on the assumption that it would have been made, if a young prince had been old enough; and entered the territory, “not as an enemy, but as a friend to the Maharajah.” We established “a strong Government,” according to British ideas, and were about to depart: but the Mahrattas were not disposed to let us march off so quietly. They challenged us to two great battles, in which the British were victors; and Lord Ellenborough, who was near or on the spot, taking the interest of a strong partisan in the conflict, issued more high-sounding proclamations about the glory of British arms on the plains of Sindia, and the blessings of British intervention within the walls of Gwalior.

Now, we had not “established a strong Government,” nor “were we about to depart,” when the Mahrattas challenged us to

the great battles." We fought the great battles first, and established the strong Government afterwards. We were advancing, not departing, when the Mahratta batteries opened upon our troops.

One more extract, and we have done. With the following passage Miss Martineau concludes her chapter of Indian history:—

It is a relief to turn from the dreary scenes in the interior of the Asiatic Continent, to a far brighter one in its Malayan Archipelago. In the young days of the existing generation, boys and girls were taught at school that Borneo was the largest island in the world—Australia then being not fully ascertained to be an island. Among the boys so taught might have been James Brooke, whose imagination, as he grew up, dwelt in the Malayan seas. At length, the time came when he found himself sailing in those seas, and thinking what could be done with the piracy there, which so abounds, and is so cruel in its character, as to put a stop to a commerce of extraordinary promise, and to keep the population of the Archipelago in a lamentable state of barbarism. James Brooke saw that Borneo produced material for an unlimited commerce: "Within the same given space there are not to be found equal mineral and vegetable riches in any land in the world." He saw that the people, from being barbarous and in a precarious condition as to life and welfare, might be civilized and Christianized. To this enterprise he devoted his life and all his resources. In 1838, he went forth, in a schooner of his own, on a voyage of preliminary exploration. In August 1839, he was well received by the Rajah of Sarawak (on the North-west point of Borneo)—this Rajah being the uncle and deputy of the Sultan of Borneo. In return for aid against rebels, the Rajah offered him the Government of Sarawak—thus furnishing him with the opportunity he desired on behalf of his scheme. We next see him Rajah of Sarawak, happy in witnessing the striking improvement of the people under his sway in character and fortunes. The great drawback was the pirates, who swarm in all the intricate passages of those seas. The value of Rajah Brooke was by this time seen; and views began to open upon Government, and every body who knew the story, of his importance in our national history, as the discloser of a vast new commerce, and the simple-minded regenerator of barbaric populations. At the close of the Chinese war, the *Dido*, and afterwards the *Samarang*, were ordered forth against the pirates, and broke up several of their strongholds. Mr. Brooke accompanied these expeditions; and, in 1845, a further proof, in the eyes of the Sultan, of his credit with the British Government, was given in his appointment to be the agent of his sovereign in Borneo. The Sultan besought our assistance for the further suppression of piracy, and ceded to us the little island of Labuan, not far from the Bornean capital, as a naval station, on the way between India and China. The Sultan, however, was as weak and untrustworthy as such potentates are apt to be. He was won over from the British by intrigue—slew those of his relations who were favourable to them—and countenanced the piratical acts of his own subjects. When he was proceeded against with them, in 1846, he fled into the interior of the island, and would not return. The British officers therefore left with the people a statement of the facts of the case, and of the reasons of their conduct, to be shown to the Sultan, whenever he should re-appear. In all these proceedings, there has been no pretence

of conquest for selfish purposes : and thus far, the presence of the British appears to be pure blessing to the people of Borneo. Rajah Sir James Brooke has since been in England, receiving honours from the Queen and people : and he has gone to the East again, unspoiled by homage, and unrelaxing in his energy, to accomplish, as Rajah of Sarawak and Governor of Labuan, the objects which he proposed when plain James Brooke, with no other outward resources than his own little schooner, and the means of negotiating for a cargo of antimony. There is more satisfaction in recording an euterprise, so innocent in its conduct and so virtuous in its aim, than in making out a long list of Affghan and Scindian victories, with the thanks of sovereign and parliament for a commentary.

“For a commentary :”—What a commentary has been passed, by certain orators of the House of Commons, on the benevolent measures of Sir James Brooke. There has been more talk about his iniquities and atrocities, than about the invasion of Afghanistan, or the conquest of Scinde. Miss Martineau’s “one bright spot” seems, in the opinion of this section of the lower house (fortunately a small one), to be the darkest in all the modern history of the Eastern world. Nothing, that we have ever done, or suffered in Afghanistan, seems to have created such lively indignation on the one hand, and such lively sympathy on the other, as the doings of Sir James Brooke in the Malayan Archipelago, and the sufferings of the barbarous pirates, whom he conceived it to be his duty to destroy.

ART. II.—*The Life of Muhammad, by A. Sprenger, M. D. Part I. Allahabad. 1851.*

THE world has at length begun to be discontented with the epigrammatic sentence, in which the historian of the Lower Empire considered that he had epitomized the creed of Islām. "The faith which Muhammad preached to his family and nation ' is compounded of an eternal truth, and a necessary falsehood ;— ' that there is only one God, and that Muhammad is the apostle ' of God." A strong desire has made itself manifest in Europe to comprehend more accurately the interior working of a system of belief, which has stereotyped the ideas of tribes, who rule over the most fertile portion of the earth's surface; which has as yet proved impervious to all the assaults alike of better and baser faiths; and, even now, at the distance of twelve hundred years, can rouse the apathetic oriental into a frenzy of fanaticism. With the desire, the means of gratifying it have also been extended. The swarm of travellers, who, within the last twenty years, have examined every province of Western Asia, have made the European mind familiar with Muhammadanism in its purest form, that is, when held by a stationary armed clan ruling over a people of Helots: while men like Macfarlane, Lane, Kinglake, and we may add Layard and Curzon, have each added something to our power of appreciating its effect upon the intellectual development of its devotees. A natural result of the attention paid to the belief has been a disposition to examine more closely the history, character, and leading ideas of its founder, the great Arabian, who is, perhaps, none the less interesting, that he is almost the only man, who stands out boldly on the page of history, as the author of a change in the fossilized aspect of the Arabic race. Unfortunately, the prevailing taste of the age has induced able writers to "popularize" his biography, before any exhaustive work has made its appearance; and a crop of "histories," "essays" and "reflections" have been the results—all of them distinguished, rather by originality of thought and felicity of diction, than by any accurate knowledge of the facts, upon which their thoughts ought to be based, and which their euphonious sentences are intended to adorn. Still the subject has been re-opened, and generally in so fair a spirit of criticism, that there is every probability of the world arriving at length at a philosophical view of the whole question.

The earlier ideas of the character of Muhammad, particularly in England, seem to have been strongly influenced by the personal abhorrence borne by the natives of the North to the

Southern races, increased doubtless by that sullen fanaticism, on the other hand, which considered all infidels as animals, whose throats were created for the sword. The crusaders brought with them from Palestine all that fierce zeal, which had inspired them when fighting for the Sepulchre, modified only by a more deep-rooted dislike for a civilization, which they could not comprehend, and a stronger malignity on account of their own ultimate defeat. From this period, as the knowledge of the East gradually died away, or became confined to the trading communities of Italy, the name of "Muhammad" became a synonyme for every execrable quality; while, later still, English knowledge of Muhammadanism was confined to tales of the "Barbary Corsairs," full of narratives as marvellous as those of the Arabian Nights. There are still extant many tales of the cruelties practised by these pirates upon their captives, for the most part written by men, who perhaps exaggerated the hardships they had undergone: but still there is quite sufficient in these stories to excite the disgust and indignation of the European nations. Down to a very late date, the prejudices of the multitude were shared by grave and solemn historians; as is evident from the general absence of candour and discrimination, with which both Muhammad's character and creed were treated by the few who professed to know any thing of either. They seem to have laboured under a perpetual dread, that in recording the actions of Muhammad and his followers, they were lending their aid to diffuse his opinions. Dean Prideaux, in his "Life of Muhammad," was evidently actuated, if we may be allowed the expression, by a feeling of personal hostility to the prophet; and, in the latter portion of that work, heaps abuse upon his head, in a style that would appear to be worthy of a monk writing the history of the Waldenses. He even stops to prove that the angel of the third heaven, if he had eyebrows of a certain width, must have been of a certain height, and would be too tall to stand up in the space allotted him. This, at the best, is somewhat puerile, especially as it is by no means certain that the long tale, as we have it, was ever written by Muhammad at all. There can be no doubt that he told to his followers some story of a journey to heaven; but he did not insert it in the Korán, though there is an allusion to it in the 17th chapter. Such stories lose nothing by oral transmission; and to this day it is not settled whether it was related as a dream, a vision, or a positive journey. Dr. Prideaux's book (like many others) should have been styled "Legends relating to Muhammad, based on Arabic authorities." Unfortunately for history, the sound scholarship, which Prideaux really possessed,

has caused him to be regarded as an authority of the first rank ; and the worthy dean is popularly quoted, without examination, either of the intrinsic probability of his narrative, or of the authorities from which its ground-work is obtained. Even Samuel Ockley, who gives Dr. Prideaux a sharp reproof for his imperfect history, and is far more temperate and fair, can scarcely allow to Muhammad the possession of qualities, without which his project could never have been attempted.

On the other hand, there have not been wanting men, who laboured to invest a question purely historical with the bitterness of theological strife, by exalting Muhammadanism in opposition to Christianity. Boulainvilliers was, we believe, the first who adopted this style : but it has frequently been re-attempted by French historians ; and, even in Germany, where accurate learning ought to have preserved scholars from such shallow criticism, the idea has been a favourite one. Almost in the present day, Tholuck, subsequently a sincere and able defender of Evangelic Christianity on the continent, is understood to have commenced his career by an essay intended to prove how far Islámism was superior to the religion of the Gospel. All those, who have adopted this system of ideas, have laboured to invest their hero with a supernatural degree of wisdom, and more particularly with a prescience in regard to the future fortunes of himself and his creed, which is totally unwarranted by the few facts we possess, and in itself draws very strongly upon our credulity. Even the impression, which the success of his faith has made upon Asia, infusing into the most opposite races some portion of the haughty spirit and boiling courage of the Bedouin, has been twisted into an evidence of Muhammad's preternatural insight into the nature and requirements of the East.

A different cause has produced in England a similar effect. As the cloud, which had covered the face of the East, gradually lifted, so did the character of this remarkable man stand out in bolder relief ; and an unconscious reaction of public opinion invested him with many qualities, to which he had not the shadow of a claim. The finishing stroke to this view of his character was given by Carlyle in his "Hero-worship," in which he has painted the portrait of Muhammad, as a fashionable artist does that of his titled sitter ; no one can deny the likeness, yet every one, but its victim, perceives the flattery. Carlyle seems to have taken for granted, that those, who lived and fought for twenty years by the side of a chieftain always accessible, must have perceived in him qualities far beyond their own range of thought, ere they would have accepted him as a messenger of

God. The same argument would deify Joe Smith, who was certainly revered by his disciples to the full as much as Muhammad by the people of Medina. Carlyle was not sufficiently acquainted with the boundless credulity of a genuine Asiatic, or the ease, with which the successful teacher and ruler is converted into the demi-god.

Later even than Carlyle, an attempt has been made across the Atlantic to write a history of Muhammad, which should be at once just and popular. Nothing that proceeds from the pen of Washington Irving can be positively bad: but it must ever be a matter of regret that he should have selected a subject so foreign to the bent of his intellect. His narrative is, as usual, clear in arrangement and perspicuous in style, and displays considerable research: but it is distinguished neither by deep learning, nor critical acumen. There is no massiveness in the thoughts or in the style, and the eye glides over the smooth sentences without a wish to pause, and without the smallest interest either in the man or in his biography.

In short, the popular historians appear to have followed the system, ascribed by Macaulay to classical students with reference to Greek literature, and to have considered every Arabic (and even every oriental) historian, as equally an authority, without attention either to the date at which he wrote, or to the critical ability which he displays. Gibbon, whose ideas of Muhammad seem to have been erroneous, only when his prejudices interfered with his judgment, or when his ignorance of Eastern manners led him to misunderstand the bearing of some social fact, borrowed almost all his information from Maracci, d'Herbelot, and Ockley, and, as he very candidly acknowledges, was entirely innocent of any acquaintance with Eastern tongues. Ockley indeed has given a list of Arabic authors at the end of his work, which corresponds pretty nearly with that given by Dr. Sprenger: but many of them he had been unable to procure; and he evidently trusted rather to selections, found in other and more accessible works, than to the original manuscripts; while he quotes a statement on the authority of Abulfeda, who lived more than six centuries after the Hejira, as of equal authority with one of Tabary, who lived three hundred years before him. Truriég, in his life, makes no pretension either to learning or research, his object having been to write a popular, and, as far as possible, unprejudiced narrative mixing up history and legend—tradition and fact—in a most euphonious compound, which, as we have observed above, has no farther pretension to be considered a biography than that its subject is a single individual. Crichton's *History of Arabia*,

which contains, perhaps, the best of the popular sketches of Muhammad's career, is a mere affair of shreds and patches strung together with considerable art, and enlivened by the most daring plagiarisms, particularly from the *Decline and Fall*. Green, and other writers of compendiums, of course paid little attention to original authorities, but relied principally on Prideaux and French *excerpts* from Arabic authors. Even Sale, in the sketch of Muhammad prefixed to his edition of the Korán, rests his narrative principally upon Abulfeda: and the "Preliminary Discourse" is chiefly valuable from his intimate acquaintance with the Korán itself and its commentators. Of Weil's "Life of Muhammad," we have already expressed our favourable opinion; and we shall probably have to refer to it afterwards, ere we complete our notices of Dr. Sprenger's work.

Maracci's Korán does not come within the scope of our remarks, which are confined to the "popular" historians, among whom there is not one, who has attempted to supply an exhaustive sketch of the career of his hero. To Dr. Sprenger must belong the praise of having been the first to examine narrowly the character, antiquity, and truthfulness of the only authorities, from whom a real biography of Muhammad—making clear every aspect of his character and every circumstance of his career—can be drawn: and he is also the first to indicate the proportion of confidence to be reposed in each. Even he, however, does not appear to us to have established the right of his favourites to be received in evidence without suspicion. The chain hangs well together, but some of the earlier links are rudely fashioned, and but ill adapted to resist the file of criticism. With the exception of certain treatises collected and preserved by Harún-al-Raschid, and the Korán itself, there are no historical writings extant, relating to Muhammad, and contemporaneous with himself. The allusions to particular circumstances and local incidents, which occur in the latter work, are exceedingly valuable, and have been diligently explored: but hitherto rather with the view of throwing light upon the baser substratum of Muhammad's character, than for any distinct historical purpose. Ibn Amr is the only one of the fiery zealots who surrounded him, who is certainly known to have left memoranda of his sayings taken down as they fell from his lips; and his collection is no longer extant. Even could it be recovered, it would be important rather in a doctrinal point of view, than from the light it would throw upon the biography of the speaker. The remainder, either from a prejudice against literature in general, which Dr. Sprenger attributes to them, and which is frequently an accompaniment of religious enthusiasm, or from the stirring character of their daily

life, composed and recorded little,—content to trust their own and their prophet's renown to their conquests, and his Korán. But when the death of their leader, without the revised revelation which he was so anxious to prepare, had sanctified his lightest word and most trivial gesture, every man, who had either listened to, or talked with, or even seen him, found himself an authority to crowds of ardent and credulous enquirers. The number of these "companions," as reported by Dr. Sprenger, is 12,000, a number obviously legendary, unless it is intended to include the entire body of those, who had ever had access to him: and even the ten thousand biographies of the Içabah must strike every one but an Asiatic, as apocryphal. Here again the evidence of these traditionists is valuable only as a record of opinions. The majority even of the most trustworthy had joined him late in his career, and could have acquired their knowledge of his earlier history only from the vague gossip of a camp, aided perhaps by some information from Ayesha and Ali. Like modern professors, the "companions" delivered their lectures orally; and their pupils were in the habit of taking notes, which they compared, not only with each other's, but with those of the disciples of other lecturers. When it is considered how soon the "odium theologicum" broke out after the death of Muhammad, and the strong temptation, to which each companion was exposed, to exaggerate the degree of confidence reposed in him by the prophet, the uncertainty of this mode of preserving historical facts becomes painfully manifest. Scarcely any man, even among the clear heads and cold hearts of the North, can repeat a story, which he has just heard, without alteration or improvement; while in many the inability to retain the "point" of a narrative, no matter of what kind, partakes of the nature of a positive mental failing. To suppose that the Arabs, imaginative by temperament, and accustomed to the loose talk of a standing camp, should not have coloured their narratives, and imparted a fiercer turn to their doctrinal disquisitions, is to us at least utterly incredible. To what an extent the traditionists and commentators have contrived to pervert the civil precepts of Muhammadanism, even though preserved by writing, will be at once evident to any one, who compares the Hedaya with the Korán: and the suspicion is forced upon us, that a fact or two, particularly if it militated against Muhammad, may have first been glossed over in the oral lectures, and then quietly dropped from men's minds, and consequently from written history. The Khalif Omar, who ascended the throne ninety-nine years after the Hejira, was the first to order a collection of these memoranda to be made; and even his compilation has not come down

to us, though the work of Ibn Ishaq, as paraphrased by Ibn Hisham, was probably founded upon it. Thus the original sources of Muhammad's biography are sullied by every possible description of historical defilement;—the only narratives of contemporaneous origin were at first orally delivered; the utterers of them had strong personal motives for making unwarranted additions; and, lastly, there is every probability that they were tinged with a spirit of sectarianism. We must not, however, omit one consideration, which, at first sight, militates strongly against our own argument, and might, and probably to some extent did, preserve the opinions of the prophet from wilful corruption,—whether the earlier friends and most trusted generals of Muhammad believed in his immediate inspiration* or not, a fact upon which Dr. Sprenger throws considerable doubt, it is certain that “the companions” did so believe; and they might feel it an act of sacrilege to alter any thing which bore so nearly the relation of a divine command. This, however, would be a protection only against wilful perversion, and not against that unconscious modification or colouring, to which we have before alluded.

We give Dr. Sprenger's account of his authorities entire; but we could have wished it considerably amplified, so as to enable us to judge of the process of reasoning, by which he arrived at his results with regard to their relative trustworthiness:—

It is generally believed that the traditions were preserved, during the first century of the Hijrah, solely by memory. European scholars, under the erroneous impression that *Hadduthanā*, “I have been informed by,”† (the term by which traditions are usually introduced), means exclusively oral information, are of opinion that none of the traditions contained in the collection of Bokhāry had been written down before him. This, however, appears to be an error. Ibn 'Amr,‡ and other companions of Muhammad, committed his sayings to paper during his life-time; and their

* We use this word, though it does not express the Muhammadan idea, simply because the English language has no word for one, who is a *medium* for communications from above, yet is not inspired.

† “The terms *hadduthanā*, or *akhbarānā*, ‘I have been informed,’ ‘I have received intelligence,’ are used, both if the pupil reads a tradition before his master, and if the master reads it before his pupil.”—(Abū Hanyfah *apud* Bostān.) Some authors give to these two terms a still wider meaning, and use them if the student has obtained his information by book or letter, and not in the presence of his master.—*Ibidem*. The term for indirect communication, where the intermediate authorities are not known, is *qāla folānū an folānū*; and a tradition thus propagated is called *mo' an 'an*.

‡ 'Abd Allah b. 'Amr b. al-'Aḡ died in A. H. 63. He says, (*apud* Abū Dāwūd,) “I was in the habit of writing down every word I heard from the prophet; but the Qorayshites wished to prevent me; and they said, Art thou writing down all his sayings, though he is but a man, who is led by his likings and dislikings? Upon this I gave it up, until I mentioned it to the prophet. Pointing with his finger to his mouth, he said, Write; for, by God, nothing but truth comes from my mouth.” That Abū 'Amr used to write down the sayings of Muhammad, is confirmed by traditions in Tirmidzy and Bokhāry.

example was followed by several of the Tábi'ys.* When 'Omar b. 'Abd al-Azyz came to the throne (A. H. 99,) there was only one man alive who had heard the prophet; † and even many of the Tábi'ys had died away. The necessity of writing down every authentic record of Moḥammad, which could be collected, being urgent, the Khálif issued a circular order to that effect; and commissioned Abú Bakr b. Moḥammad more especially with the task of collecting traditions.‡ His efforts were seconded by the spirit of the age; and so extensive was Arabic literature, consisting chiefly of books containing traditions, in the beginning of the third century, that Wáqdiy, who died in A. H. 207, (A. D. 822,) left a collection of books, which it took twelve hundred men to remove.

The writings of that early period, however, were generally rather memoranda than systematic books§. Towards the end of the third century, all the traditions, which were at all to be relied upon, had been collected in works, many of which are existing till this day; but it is certain that most of them had received a stereotype form previous to the beginning of the second century. Therefore the nearest view of the prophet, which we can obtain, is at a distance of one hundred years; and, though we see him through the eyes of believers, our knowledge of their bias enables us to correct the media, and to make them almost achromatic. As all biographies of Moḥammad rest on these ancient books, I name here such as may illustrate my subject. Among these, the six canonical collections of the Sunnies,|| and the four of the

* Abú Shaháb also wrote down traditions: " 'Abd Allah b. 'Amr says, I was with Abú Shaháb, when a book was brought to him by some people, who asked him, whether he knew this book? He answered, Yes; it is mine. Upon this they were pleased with the book. He did not read it to them; nor did they read it before him; but they copied it, and propagated it, saying, We have been informed (*haddathand*) by Abú Shaháb."—(*Bostán* of Abú-l-Layth.)

† Ráby' b. Anas says, My grandfather Zayd and his brother Ziyád used to visit Salmán (died in 35) at night; and he related to them traditions, and they were occupied with writing them down till morning."—*Bostán*.

‡ "Names of the companions of Moḥammad, who died latest: The last who died at Kúfah was 'Abd Allah b. Aby Awfa; he died in A. H. 86. The last who died at Madynah was Saḥl b. Sa'd Sa'ydy, A. H. 91, one hundred years old. At al-Boḡrah, Anas b. Málík, A. H. 91 or 93. In Syria, 'Abd Allah b. Bosr, A. H. 88. Wáthilah b. al-Asqa' died at Damascus, in 85, at an age of 98 years. Last of all died Abú-l-Tofayl 'Amir b. Wáthilah; he died after A. H. 100. He was in all the wars of 'Alí, and standard-bearer of Mokhtár. He believed in the millenium (*raj'ah*.) (This doctrine was introduced, under 'Othmán, by a Jew, of the name of 'Abd Allah b. Sabá.)"—Wáqidy, *apud* Ibn Qotaybah, *Kiáb al-Ma'-árif*.

§ Qastalány, *Comm. on Bokháry*, pref. c. 2.—Abú Bakr b. Moḥammad b. 'Amr b. Hazm, died in 120, at an age of 84 years.

|| Yáqút's Biography of men of letters; and *Fihrist* of Ibn Ya'qúb Nadym.

¶ They are—1. *Cahy* of Bokháry, born in 194, died in 256; it is being lithographed at Delhi. 2. That of Moslim, born 204, died 261. 3. The *Sonn* of Abú-Dáwúd, (which has been lithographed at Lucknow), born 202, died 275. 4. That of Tirmidzy, died 279. It is being lithographed at Delhi. 5. That of Nasáy (which has been lithographed at Delhi); he died 303. 6. Ibn Májah, born 209, died 273. Besides these there are some other collections, (mostly founded on the preceding ones), which are much esteemed among the Sunnies, as that of Dárimy, died in 255; that of Daraqotny, died in 385; of Abú No'aym, died 430; of Isma'yly, born 277; of Baráqny, born 336, died 425; of Ahmad Sonny, born 364; of Bayhaqy, born 384, died 458; of Homaydy, died 408; of Khattáby; of Baghawy, died 516; of Razyn, died 520; of Jazary Ibn al-Athyr (Mobarik), died 606; of Ibn al-Jawzy, died in 597; of Nawáwy, died 676. The *Taysyr al-waḡúl ilá al-oḡúl*, and the *Mishkát*, which I frequently quote, contain the traditions of the six canonical books; but the *sanad*, or string of authorities, is omitted in them. I also frequently used Nawawy's Commentary on Moslim, of which I possess a very correct copy.

Shiahs* are the most important in a theological point of view, and contain much information respecting the biography of the prophet. The records of the Shiahs, however, are infinitely less faithful than those of the Sunnis.

The first author of a biography of Mohámmad was Ibn Isháq, a Tábi'y, who died in A. H. 151, (A. D. 768). His book was written at the request of the Khálif al-Mançúr; and the author used to lecture upon it. Ibn Isháq was endowed with a faithful memory and brilliant talents. His taste is refined, his style elegant, and his language powerful; but his book is written with a deep design; and he may be considered as the father of Mohámmadan mythology †. In collecting traditions he was not critical; ‡ and he suffered himself to be guilty of inventing new ones, § and forging the authorities; || and for this reason he was not relied upon by early authors ¶. His object is to edify and amuse his readers; and to this object he sacrifices not only truth, but in some instances even common sense.

I doubt whether the book of Ibn Isháq is extant in its original form. Ibn Hishám, (died in 213—A. D. 828), a pupil of Bakáyy,** who had attended the lectures of Ibn Isháq, made a new edition of it, which is the best known and most ancient biography of Mohámmad extant; †† but unfortunately the additions of Ibn Hishám are even less critical than the text of Ibn Isháq. Yet this is the only original source, which has hitherto been used by European historians.

Another early biographer of Mohámmad was Abú Isháq, who died in

* They are—1. *Káfy*, of Kolyny, (Abú Ja'far Mohámmad b. Ya'qúb), died in 328. This is a very large work; and, even at Lucknow, good copies are rare. 2. *Man lá yahdhoro ho al-faqyh*, by Abú Ja'far Mohámmad b. 'Alyy b. al-Hosayn b. Bábowayh Qommy, died 381. 3. *Tahdzyb*; and 4. *Istibçár*; both by Abú Ja'far Mohámmad b. al-Hasan b. 'Alyy Túsy, died in 400. Some add—5. *Madqnat al-'ilm*, by Ibn Bábowayh. Owing to want of time, I used these books but very rarely, with the exception of the *Istibçár*, of which I have an excellent copy; but, taking it for granted that the *Hayát al-qolúb* contains all the Shiah traditions on the life of Mohámmad, I read it. I had also the use of some volumes of the *Bihár al-anoár*, which is a work in twenty-five or six volumes quarto, and contains all that a Shiah needs to know.

† Even Mohámmadan authors discerned that he attempted to shape the biography of their prophet according to the notions of the Christians. See Behlol' *Kanz al-Jawáhir*.

‡ Abú-l-Fatá Mohámmad b. Ahmád b. Sayyid an-Nás Ya'mryy Raba'yy, died in A. H. 734. The author of a work on the biography of Mohámmad, entitled '*Oyán al-athr*', (MS. of Royal Library of Paris, No. 771), complains that Ibn Isháq does not always mention the companion of the prophet from whom he had received the tradition.

§ Ibn Qotaybah says, "I heard Abú Hátim saying, on the authority of Açma'y, that Mo'tamir said, 'Take no tradition from Ibn Isháq: he is a great liar.'" Ibn Khallikán, (Engl. Transl. vol. II., p. 678,) informs us that Málik b. Anas had an unfavourable opinion of Ibn Isháq.

|| Ibn Qotaybah and Ibn Khallikán relate the following anecdote:—Ibn Isháq quoted Fátmah, the wife of Hishám b. 'Owah, as an authority for some tradition. When her husband heard it, he exposed him by saying, "Has he ever paid a visit to my wife?"

¶ Bokháry, and to the best of my knowledge Wáqidy, takes no tradition at all on the authority of Ibn Isháq; and Moslim b. al-Hajjáj only one. See Ibn Khallikán, *loco citato*, and Abúlfedá, *ad annum* 150. But Wáqidy quotes him on genealogy.

** Sam' any says of Ziyád Bakáyy (died 183), that he made awful blunders, gave free scope to his imagination, and that his accounts cannot be considered conclusive, unless they are confirmed by others.

†† Even of this book copies are rare, (Ewald, *Zeitschr. zur Kunde d. Morgl*). I used an abridgement, *tahkhyq*, made at Damascus in 707, by Ahmád b. Ibrahim b. 'Abd al-Rahmán Wásity. At first I had the beautiful autograph of the abbreviator at my disposal; but subsequently I had a copy made from it for my use.

188. He is more honest, but his accounts are full of errors.* We have no book of his; but he is constantly quoted in the history of Abú Hatim Ibn Habbán, which is still extant, and sometimes even by Wáqidy.

Madáyiny, who died in 225, compiled no less than twenty-nine books on the biography of his prophet; but it seems that his writings became scarce very early; for they are rarely quoted. Not one of his numerous works is at present known to exist. The same seems to have been the fate of the detailed labors of most other authors of that critical age;† and I omit mentioning those, whose works have not even indirectly contributed to our knowledge.

Towards the end of the second century, Wáqidy‡ compiled several books that have reference to the biographies of Moḥammad, of his disciples, and of the traditionists after them;§ and they were collected into one gigantic work of fifteen large quarto volumes by his secretary,|| who made numerous additions, and gave it the name of *Tabaqát Kabýr*; but it is generally called the *Tabaqát Wáqidy* ¶ The first volume contains the life of Moḥammad, and of those of his companions who fought at Badr. This is by far the best biography of the Arabic prophet; but, being rare, it has never been used by an European scholar. The veracity and knowledge of the author have never been impugned by his contemporaries, nor by good early writers, and the unsupported attacks on him by modern authors reflect the greatest credit on him. Shocked by some of his disclosures, they call him a liar; and, disgusted with his impartiality, the Sunnies accuse him of a

* Ibn Qotaybah says, "He was a very good and excellent man; but he is guilty of many blunders in tradition."

† Major Rawlinson, C. B., Resident at Baghdád, has in his collection a MS. of the *Siyar al-anbiyá wasyrat nabyyná*, by Abú Aḥmad al-Hasan' Askary (died in 382), which promises to be a very valuable work.

‡ Abú 'Abd Allah Moḥammad b. 'Omar b. Wáqid, of the Aslam tribe, resided originally at Madynah, but was, during the last four years of his life, Qádhý of 'Askar al-Mahdy, (i. e. the eastern part of Baghdád); born A. H. 130, died in 207.—Ibn Qotaybah. He left at his death six hundred boxes (qimatr) of books, each of which was a load for two men. The boxes made one hundred and twenty camel loads (the term is wigr in Sam'ány, and haml in Dzohaby). He was a sectarian of 'Alyy, whom he considered a miracle of Moḥammad. Among other masters he heard Ibn Jorayh.—*Fihrist* and *Ansab Sam'ány*.

§ 1. *Syrat* (biography of Moḥammad); 2. *Wafát al-Nabyy* (death of Moḥammad); 3. *Tarykh wa-l-Magházy wa-l-Mab'ath* (chronology, military career and prophetic mission of Moḥammad); 4. *Azwáj-al-Nabyy* (the wives of Moḥammad); 5. *Tabaqát* (biographies chronologically arranged).

It is stated in the *Fihrist* of Tusy, (died in 460), that "Some good Sunnie authors assert, that all the works, which bear the name of Wáqidy, were compiled by Ibráhyim b. Moḥammad b. Aby Yahá, Abú Isháq, who was a client of the Aslam tribe, and flourished about A. H. 114; and that Wáqidy transcribed them, and claimed them as his own works. We, however, (the Shiáhs), are not aware that any of Wáqidy's writings are ascribed to Ibráhyim b. Moḥammad."

|| Abú 'Abd Allah Moḥammad b. Sa'd b. Many Zohryy, died at Baghdád in 230. Ibn Khallikán, III. p. 60, gives him a very high character for learning and veracity. In Baron Slane's translation of Ibn Khallikán, it is stated that he died in 203. This is a typographical error; for he died after Wáqidy. In Tydeman's *Consp.* and in Dzohaby, A. H. 230, (A. D. 844), is given as the date of his decease.

¶ In Ibn Qotaybah, and other old writers, the author is simply called Wáqidy, probably for the sake of brevity. In the title-page of a very correct copy of the first volume, which was executed in A. H. 718, the author is called *al-Kátib al-Wáqidy*, and not *Katib al-Wáqidy*. Yet in the book itself, the author constantly says, "I have been informed by Wáqidy." I found this book quoted in Persian authors under the title of *Tabaqát Hamadány*. For the sake of brevity, I call the author Wáqidy.

Shiah bias* His book contains merely traditions. They are short, and carefully traced to an eye-witness through warranted authorities. Some times several versions are given of the same traditions; and for every version the channel is mentioned. There is no trace of a sacrifice of truth to design, or of pious fraud, in his works. It contains few miracles; and even those, which are recorded in it, admit of an easy explanation. This book has always been the principal source of information for critical Musalman biographers of their prophet.

The traditions, containing a description of the person, manners and character of Mohammad, collected by Tirmidzy, (died in A. H. 279, A. D. 892), are not numerous, but authentic; and have been printed in Calcutta and Lucknow†

Another man, of great learning and integrity, who collected traditions on the biography of the prophet, is the great historian Tabary, who died in A. H. 310, A. D. 929. At present, however, the portion of his annals, which contains the history of the origin of the Islām, is available only in the Persian translation, which cannot be fully relied upon.

Much incidental information, respecting the age of the prophet, and matters connected with the previous history, is contained in the *Kutāb al-Aghniy*, or Song Book, of Abū-l-Faraj of Ispahān; but the author is too fond of the marvellous to be implicitly relied upon. His principal authorities on the prophet are Ibn Ishāq and Tabary.

To this list of original sources may be added the *Kashshāf*, and other commentaries on the Qorān, which contain many authentic records not to be found in other works. The author of the *Tārykh Khams*, (died in A. H. 966), one of the most modern biographers, has consulted them to great advantage. We must, however, use the commentators with great distrust. The Qorān contains many passages, which are not in harmony with the ideas of the Moslems; and Mohammad was obliged to make many confessions, which were not creditable to him. The skill of a commentator consists in perverting the sense and misleading the reader. It is singular that, as far as I know, not one of the very ancient commentaries is in existence now. They were probably too true to be preserved.‡

Much valuable information is contained in the lives of the companions of the prophet, on which we have three very large works.§

* The error arises from their confounding the well-known romances, which bear the name of Wāqidy, with the traditions of that author; and again, from their considering the *Tabaqāt Kabir* as the work of Wāqidy himself. The author of the *Kanz al-Jawahir*, who flourished in A. H. 1136, goes so far as to stigmatize the *Siyat* of Wāqidy, (meaning the first volume of the *Tabaqāt Kabir*), as a texture of falsehood. Were a refutation of this calumny required, it might be observed, that wherever the canonical collections contain traditions on subjects treated on by Wāqidy, they are either identical, or agree in sense with his, though his authority is not quoted.

† The Calcutta edition cannot always be relied upon. I possess an old MS. copy, which did me good service. The Lucknow edition is called Behār i Khuld. I did not use it.

‡ The commentaries ascribed to Ibn 'Abbās and to Imām 'Asqary are later compilations of their traditions regarding the Qorān. The most ancient commentary now in vogue is the *Kashshāf* of Zamakhshary, who died in 538. The author was learned and acute, but not honest, yet more so than Baydhawī.

§ They are the *Is'āb* of Ibn 'Abd al-Barr, who died in 463, (see Hajj Khalifa, N. 631): the *Osod al-Ghābah* by Ibn al-Athīr Jazary, who died in 630, (see Hajj Khalifa, N. 637): and the *Iqābah* by 'Asqalānī who died in 852, (see Hajj Khalifa, N. 810). I have seen these three works but had an opportunity to use only the two last mentioned; and of the *Osod al-Ghābah* I had the use of the first half only.

On examining the Arabic historians, who flourished after the fifth century of the Hijrah, it appears that they had few, if any, original sources of information regarding the life of Mohammad, to which we have not access. It would, therefore, be superfluous to swell this list with the names of late authors.

The number of good traditions referring to the life of Mohammad, though great, is limited; and all accounts, in whatever author they may be found, rest ultimately on them. I thought it, therefore, necessary to follow the example of good Mohammadan historians, and to refer to the original traditions, stating in what collection or history they are to be found. To consider late historians, like Abúlfedá, as *authorities*, and to suppose that an account gains in certainty, because it is mentioned by several of them, is highly uncritical; and if such a mistake is committed by an orientalist, we must accuse him of most culpable ignorance in the history of Arabic literature.

It is evident then, that at the very outset of all narratives of Muhammad's career, there is a space left for doubt and conjecture very unsatisfactorily supplied. Indeed we know of no great man in history, except perhaps Sesostriis, who might so easily be proved, by some Syrian Whately, or Arabic Walpole, never to have had any existence at all. An argument of the following character would probably be popular with such sceptics:—

“It will of course be allowed even by the most fervid followers of Islám, that it would be highly unphilosophical to continue the contention concerning the character and opinions of Muhammad, which has so long distracted the universities of Mecca and Medina, until it has been decided whether he ever had any existence at all. Certain philosophers, deeply versed in the interpretation of the Korán, have supposed that there were several Muhammads, all of whom uttered wise and sententious aphorisms, which were subsequently collected into one work. But, although this opinion is supported by a vast amount of evidence, arranged and digested with great perseverance, we cannot yield to it our assent, inasmuch as Professor Ibn Makat has distinctly proved, in his chronological work on the era of Muhammad, that all evidence points to a certain definite period of time for the composition of the Korán: and we, therefore, propound another hypothesis, which is more satisfactory to our own mind. That tenets embracing the unity of the Godhead had prevailed among certain tribes in Arabia, before the appearance of the Korán, is already proven. These tenets were held by the more enlightened of the Arab nobles, particularly those of the clan Koreish, whose direct descent from Ishmael may be presumed to have retained in their family some of the leading ideas of the Jews. This family, in their determination to impress their

own belief upon the minds of their countrymen, and to save themselves from the charge of irreligion, invariably spoke in the name of a third supernatural being, with whom they declared themselves in communication, and whom they styled Muhammad, that is to say, the 'glorified,' a name which at once conveyed to Arabs of that day the idea of a spirit. With the strong power of impersonation always possessed by their countrymen, they proceeded to invest this imaginary being with attributes of supernatural beauty, such as a light perpetually shining from his face. Returning for a moment to the supposition that Muhammad was an individual, who really existed, is it credible that men, who lived with and saw him daily, should have published such a fable, or that the Meccans, if the light really existed, should have driven him from their city? Of course the individuality being thus disproved, the Korán becomes the compilation of these chieftains of the Koreish, who gave to a collection of their own opinions the name of their imaginary leader. This latter fact, indeed, is evident to the commonest understanding, from the contradictions which exist in the various Suras—those divisions themselves being proofs of our theory: for what man would of his own accord divide a book into irregular and conflicting chapters, which the final compilers found it necessary to reconcile by declaring that a later revelation superseded a former one?"

Abandoning, however, our Arabic Whately, let us accompany Dr. Sprenger in that portion of Muhammad's history, which he has given to the world. At the very first step, we are beset with doubts and difficulties, which it would require a Müller, or a Niebuhr, to remove. That the story of his childhood, as related by his admiring followers, should be crowded with absurd fables, and that every fact should be magnified in importance by men, who felt that here only had they free licence of speech, unchecked by eye-witnesses, or obstinate circumstances, is natural enough; but it is marvellous that grave historians should have hitherto made no effort to excise the mass of legendary rubbish from the biography. The amusing character of many of these stories, and the strong light, which, it must be confessed, they throw on many peculiarities in the social condition of Arabia, have induced even Dr. Sprenger, who, in other parts of his work, has displayed the critical acumen of a true German, to fill his pages with long legendary tales, of considerable interest, but not particularly calculated to assist in developing the life of his hero.

Dr. Sprenger commences his work with a chapter on the

History of Mecca up to the time of Muhammad, replete with information, but, we must say, not very lucidly arranged:—

An Arabic historian shows that the Bedouins can only be ruled by prophets; and it appears that the merchants of antiquity tamed their savage neighbours in Arabia, as elsewhere, by religion: by making their fairs places of pilgrimage. The valley in which Makkah now stands, was, in the fourth century after Christ, a sacred forest: it was called the *Haram*, and was about thirty-seven miles in circumference. The weak found an asylum in it, though they might be loaded with guilt: but it was not lawful to inhabit it, or to carry on commerce within its limits. The religious ceremonies, performed in the *Haram*, were a link between several tribes of the *Hijáz*, whom we will for the present call collectively the *Haramites*. The Barbarians, whom in the fastnesses of their deserts no human law could have restricted, submitted to religion: they abstained from war during four months of the year,—the two last and the first and the seventh months. On the first day of the seventh month, they assembled peaceably at the fair of 'Okázt, the Olympus of the *Hijáz*; where they met several tribes not belonging to their confederation; they exchanged or ransomed their prisoners, they submitted their disputes to arbitration, recited their poems, extolled the nobility of their tribes, and vaunted the valour of their heroes. It was in this fair that Qoss preached the unity of God, before Moḥammad assumed his prophetic office, and made a great impression on his juvenile mind. About the twentieth of the same month, they proceeded to another fair which was held at Majannah: and, on the first of the following month, they assembled at the fair of Majáz, from which they went, after ten days, into the sacred territory to perform the rites of religion. The ceremonies performed on this occasion were nearly the same as those through which now the Musulman pilgrims go. To us they appear unmeaning and dull; but they have afforded amusement and edification many centuries to so many millions of men, that we should not be justified in passing an opinion. Shahrastany informs us that there was an opinion prevalent among the Arabs, that the walking round the Ka'bah and other ceremonies were symbolic of the motion of the planets and of other astronomical facts.

Ambition is the most powerful spring of action in the Bedouin. To keep up the interest of the *Haramites* in their religion, various offices were devised, and divided amongst the Shaykhs of the confederate tribes, to flatter their vanity, and to make the ceremonies more imposing. And every tribe had some of its tutelary deities in the *Haram* as its representatives. This tends to show that this federative religion was an amalgamation of the superstitions of various clans made for political purposes. The most powerful of the confederates were the Kinānah tribes. They were nomades, and lived west of the sacred territory, and on the high road that leads to the north. Their chief representative was Hobal, anciently called the idol of Khozaymah, the supposed father of the Kinānah and some tribes related to them. It stood, (at least after Qoçayy,) behind the Ka'bah, over a well, and received almost as much homage as the black stone. One of these tribes enjoyed the important office of naming the time when the sacred months were to be kept. Next in importance were the Thaqyf tribes; they had their head-quarters at Tayif and were the guardians of the upper road to Yaman. Their idol Allát, probably the Alilat of Herodotus, was at Nakhlah, east of the present site of Makkah. In company with Allát was al-'Ozza. It was an idol of the Kinānah, but its hereditary priests were the Banū Solaym, who were stationed along the mercantile road to Syria in the neighbourhood of Khaybar and in the Wády al Qurá. Cúfah, a mixed

Khindif tribe, enjoyed the privilege of heading the procession of the pilgrims on their way from 'Arafat. The Jorhomites left relics of their religion in the statues of Isáf and Naylah on the hills which surround Makkah ; and the Khozá'ahites placed one of their divinities (Nahyk) on Mount Safá and another (Mo'tim al-zayr) on Mount Marwah. The ceremonies, which were performed on these two hills, are kept up to this day, though differently construed. These and several other tribes belonged to the *Haramite* league, whose members were so numerous and zealous, that the idols round the Ka'bah amounted at the time of Mohammad to three hundred and sixty.

* * * * *

The *Haramites* were not only amused with idol ceremonies, but they were attracted by solid interests; all assisted in, and derived some advantage from, the lucrative transit commerce.

The league was headed by the principals of the Arabic commerce, who were the guardians and high priests of the *Haram* ; and who, when the Ka'bah was built, held the keys of that temple. As long as the merchants of Sheba enjoyed the monopoly, they had a colony south-east of the *Haram*, and their Amyr had the superintendence (*sidánah*) over it.

The foundation of Mecca dates from the fifth century of our era. About the beginning of that century, an adventurer from Arabia Petræa, named Quoçayy, settled among the Kinánah tribes, and, by his talents and enterprize, speedily acquired wealth and ascendancy. Partly by force, and partly by intrigue, he succeeded in obtaining charge of the *Haram* ; and, in order to keep a firmer hold of the advantages which he had acquired, he formed a new tribe, since so celebrated, as the Qoraysh, or Koreish :—

This clan succeeded, in a great measure, in monopolizing the advantages of the institution of the *Haram*. The Qorayshites consisted exclusively of Kinánah families ; and, as a symbol of their unity, they all called themselves the children of Fíhr. Some of these families continued their nomadic habits ; but others preferred the comforts of settled life to Bedouin liberty, and laid the foundation of Makkah. Quoçayy chose a valley within the *Haram* as the site of the new city ; for he thought that living within the sacred territory would relieve him from his enemies. The other Kinánah tribes objected that it was unlawful to dwell in the *Haram* ; and even his own tribe hesitated to cut down the wood with which it was covered. Quoçayy laid the first axe to the tree, and the Qorayshites followed his example. He sketched the plan of the town, and allotted to every family its own quarter. To raise the sacredness of the town, he re-built the Ka'bah, or, what is more likely, he founded it. At all events, he was the first who covered it with a wooden roof, and placed a number of idols in and around it.

Though the composition of the Qoraysh tribe, and the mode of life of the Makkians, differed considerably from that of the Bedouins, the constitution of their commonwealth approached closely to the patriarchal form of government. There was in fact no government at Makkah, in our acceptation of the word, up to the time of Mohammad. There were no laws that could be enforced, no paid officers, no compulsory courts of justice, and no public treasury.

The further measures of Qoçayy were marked with equal vigour and wisdom :—

To give to the commonwealth of Makkah more consistency, unity of purpose, and regularity, Qoçayy built the Town-hall (*dar al-nadwah*). It was close to the Ka'bah, and its doors opened towards it ; for religion and state were closely united. The Town hall was never public property ; but it was the place where all public business was transacted. There the Makkians deliberated in emergencies ; they decided on war or peace ; they installed their leaders, and those of their allies ; they concluded marriages and performed the circumcision of their sons ; and all Qorayshite caravans, and even single travellers, started from the Town-hall, and visited it on their return to Makkah before they went to their own homes.

Every Qorayshite, and every confederate, who was forty years of age, had a right to attend at the deliberations ; and the sons of Qoçayy enjoyed the privilege of being permitted to attend before they had attained that age. There was no voting, because, as it has already been observed, only persuasion, and not compulsion, could unite the Qorayshites to carry a measure into execution. Wealth, connexions and family gave great influence ; but the greatest man in council was he, who shone brightest with the virtues of a Bedouin—bravery, resolution, hospitality, ready wit and cunning. He drew the mass along with him.

The moral influence of Qoçayy was so great, that he ruled Makkah with almost absolute authority. He was the proprietor of the Town-hall, and had besides, four or five of the offices of the *Haram* alluded to above. He and his sons were the hereditary leaders and standard-bearers of the tribe in war, and the stewards in the entertainment prepared by the Qorayshites for the pilgrims, whilst they performed their religious ceremonies at Makkah and in Minâ. He also had the management of providing them with water on those occasions. Most authors give him credit for having first introduced these two offices ; but as hospitality is with the Arabs the privilege of the strong, and the first attribute of power, we may suppose that they are as ancient as the *Haram*.

When Qoçayy died, he was buried in the hill of *al-Hajûn*, near Makkah, which became henceforth the burial-ground of the Qorayshites

His oldest son, Abd Al Dâr, succeeded him in the stewardship ; but he was eclipsed, even in his lifetime, by the superior talents of his brother, Abd Manâf. A son of the latter, named Hashim, finally obtained the stewardship, and was distinguished for his munificence and activity. He left a son, born in his old age, named Abd Al Mottalib. This youth, after his uncle's (Al Mottalib's) death, inherited the stewardship of the Ka'bah, and was the grandfather of Muhammad.

Muhammad was born, according to one authority, in A. D. 571, or, according to others, in A. D. 569. His father's name was Abdallah, and his mother's Aminah. He was a posthumous child, his father having died two months before his birth, while absent on a mercantile expedition. The boy was therefore named by his grandfather, who selected the name "Muhammad," signifying "the*praised or glorified"—a name which, according to the legend, excited some surprise among his family. It may

possibly have had some influence on his future fortunes, if, as is asserted, Muhammad's charge against the Christians of having falsified the Gospels was founded on his own belief that the prophecy of the coming of the Paraclete (παρακλητος) had originally been a prediction of the Periclyte (περικλυτος), i. e. the "illustrious" or "Muhammad." For our own part, we think that the notice in the Korán was merely an expression of a vague desire on Muhammad's part to connect himself with Christianity, and that, as we shall have presently occasion to remark, he had but a very limited knowledge of the Gospel. However, as he knew nothing of Greek, such a pun, for it is no better, could not have occurred to himself: and no person, well acquainted with the language, would have made such a mistake: while the third supposition, that the idea was suggested to him by a monk, in order to create in him ideas of his future destiny, is to invest the said monk with a degree of prescience, against which we have previously protested.

His mother, a woman, according to Dr. Sprenger, of nervous and susceptible temperament, put the boy out to nurse; partly, it is said, with the view of invigorating his frame in the desert air, and partly to acquire that pure Arabic, which was not to be acquired in the cities. The last reason savours strongly of a scholiast's gloss: but, at all events, the future prophet derived no lingual benefits from his sojourn in the tents; for, when he was five years old, his foster-mother, terrified at the appearance of fits—epileptic, according to our author, who is well able to pass a professional opinion on the case—returned the boy to his mother.

On her death, two years later, he went to reside with his grandfather, Abd Al Mottallib, and his uncle, Abú Tálib. The latter made him the companion of a mercantile expedition to Syria, whence he returned either alone, or in company with a Christian monk named Bahira, or Sergius. The accident of this accompaniment has been considered by many a sufficient proof that Muhammad received his first religious impressions from him: and the story is so inartistically denied by Mussulman writers, that even Dr. Sprenger lends some credence to the idea. We do not see, however, that there is sufficient proof, even if the monk accompanied him, that he remained with him any time; and it is not *primâ facie* probable, that the conversation of a Christian monk should have made so enduring an impression on a boy of twelve, the age of Muhammad at the time, as to remain suppressed for eight and twenty years, and then to appear in the Korán.

From the period of this journey up to his twenty-fifth year,

no one fact that can be relied on, is related of Muhammad, except that he was too poor to marry : and even this is rendered doubtful by the fact, mentioned by Dr. Sprenger, that he possessed property, which his father had considered sufficient to justify him in allowing his wife a female slave. That during this period, ideas, afterwards matured into action, may have been revolving in his mind, may be readily conjectured : but there is no proof whatever of the fact. At the above-mentioned age, he became agent for a wealthy widow, named Khadijah, distantly related to his own family, and, in her service, he made another journey into Syria. On his return, the widow, then in her thirty-ninth year, offered him her hand : and his acceptance raised him at once from his former poverty, though it did not place him in an independent position. He was still obliged, according to our author, to have recourse to her for all the money he required : and in short was almost as absolutely under her control, as when only her factor. She bore him six children, of whom three, all of them daughters, survived him : but the only one, who occupies a prominent place in history, is Fatima, the wife of Ali, from whom the green-turbaned descendants of the prophet are descended. Their last child was a son named Abd Manaf, or the slave of the idol Manaf : and this circumstance is considered a convincing proof, that Muhammad had not, at that time, released himself from the superstitions of his countrymen. It may be so : but when an Englishman names his son Hercules, he does not thereby express his belief, either in the existence or powers of that demi-god. Besides, it must be quite evident, though seemingly overlooked by Dr. Sprenger, that the child was named after his progenitor, Abd Manaf, the son of Quçayy.

We shall here present our readers with an account of the personal appearance of Muhammad, as it is very fully detailed by Dr. Sprenger from Arabic authorities:—

Before speaking of the mission of the prophet, it is necessary to introduce him to our readers, and to acquaint them with his character. Muhammad was of middling size, had broad shoulders, a wide chest, and large bones ; and he was fleshy, but not stout. The immoderate size of his head was partly disguised by the long locks of hair, which in slight curls came nearly down to the lobe of his ears. His oval face, though tawny, was rather fair for an Arab ; but neither pale nor high coloured. The forehead was broad, and his fine and long but narrow eyebrows were separated by a vein, which you could see throbbing, if he was angry. Under long eyelashes sparkled blood-shot black eyes, through wide slit eyelids. His nose was large, prominent, and slightly hooked, and the tip of it seemed to be turned up, but was not so in reality. The mouth was wide ; he had a good set of teeth, and the fore-teeth were asunder. His beard rose from the cheek-bones, and came down to the collar-bone ; he clipped

his mustachios, but did not shave them. He stooped, and was slightly hump-backed. His gait was careless, and he walked fast but heavily, as if he were ascending a hill; and, if he looked back, he turned round his whole body. The mildness of his countenance gained him the confidence of every one; but he could not look straight into a man's face: he turned his eyes usually outwards. On his back he had a round fleshy tumor of the size of a pigeon's egg; its furrowed surface was covered with hair, and its base was surrounded by black moles. This was considered as the seal of his prophetic mission, at least during the latter part of his career, by his followers, who were so devout, that they found a cure for their ailments in drinking the water in which he had bathed:—and it must have been very refreshing; for he perspired profusely, and his skin exhaled a strong smell.

He bestowed considerable care on his person, and more particularly on his teeth, which he rubbed so frequently with a piece of wood, that a Shiah author was induced to consider it as one of the signs of his prophetic mission. He bathed frequently, washed several times a day, and oiled his head profusely after washing it. At times he dyed his hair and beard red, with henna, in imitation of his grandfather, who imported this habit from Yaman. Though he did not comb himself regularly, he did it now and then. At first he wore his hair like the Jews and Christians; for he said, "In all instances, in which God has not given me an order to the contrary, I like to follow their example;"—but subsequently he divided it, like most of his countrymen. Every evening he applied antimony to his eyes; and, though he had not many grey hairs even when he died, he concealed them by dyeing or oiling them, in order to please his wives, many of whom were young and inclined to be giddy; and whose numbers he increased in proportion as he became more decrepid.

The character of Muhammad is an interesting study; but though it appears to be pourtrayed with much minuteness and pains-taking by Dr. Sprenger, the effect is disappointing. It shows little or nothing of the elements of greatness; and, whether we consider him as the man of intellect, or the man of action, we find little of that strength of mind, or commanding influence of character, which one naturally associates with the idea of a hero, or a reformer. And yet, judging from internal evidence, we should doubt, whether a more truthful portrait was ever painted than the following, from the pages of Dr. Sprenger:—

The temperament of Mohammad was melancholic, and in the highest degree nervous. He was generally low-spirited, thinking and restless; and he spoke little, and never without necessity. His eyes were mostly cast to the ground, and he seldom raised them towards heaven. The excitement under which he composed the more poetical Surahs of the *Qoran*, was so great, that he said that they had caused him gray hair; his lips were quivering and his hands shaking, whilst he received the inspiration. An offensive smell made him so uncomfortable, that he forbade persons who had eaten garlic or onions to come into his place of worship. In a man of semi-barbarous habits, this is remarkable. He had a woollen garment, and was obliged to throw it away, when it began to smell from perspiration, "on account of his delicate constitution." When he was taken ill, he sobbed like a woman in hysterics; or, as 'Ayishah says, he roared like a camel; and his friends reproached him for his unmanly bearing: and

during the battle of Badr, his nervous excitement seems to have bordered on frenzy. The faculties of his mind were extremely unequally developed; he was unfit for the common duties of life, and, even after his mission, he was led in all practical questions by his friends. But he had a vivid imagination, the greatest elevation of mind, refined sentiments, and a taste for the sublime. Much as he disliked the name, he was a poet; and a harmonious language and sublime lyric constitute the principal merits of the *Qoran*. His mind dwelt constantly on the contemplation of God; he saw his finger in the rising sun, in the falling rain, in the growing crop; he heard his voice in the thunder, in the murmuring of the waters, and in the hymns which the birds sing to his praise; and in the lonely deserts and ruins of ancient cities he saw the traces of his anger. His imagination peopled these fastnesses with *jinn*, who were created like ourselves to praise God. His notions, of the divinity, however, are far from being as pure as they are generally believed to be. The God of *Mohammad* is not the result of abstraction; he merely possesses those epithets, which man covets, in a superlative degree. His ascribing to him ninety-nine attributes would, by itself, be sufficient to convince us how concrete his ideas were respecting his divine nature.

The prophet was not free from superstition; he believed in *jinn*, omens and charms, and he had many superstitious habits. The *jinn* were, according to his opinion, of three kinds: some have wings and fly; others are snakes and dogs; and those of the third kind move about from place to place like men. Again, some of them believed in him, and others did not. He gave instructions to his followers, if a fly falls into a dish of victuals, to plunge it in completely, then to take it out and to throw it away; for in one of its wings is a cause of sickness, and in the other a cause of health; and in falling it falls on the sick wing; and, if it is submerged, the other wing will counteract its bad effect. To make a bad dream harmless, he thought it necessary to spit three times over the left shoulder. He was very careful to begin every thing from the right side, and to end with the left; and he smeared the antimony first in the right eye. His ideas of omens, however, were more sensible; he admitted lucky omens, but forbade to believe in unlucky ones.

The energy and enthusiasm of *Mohammad* claim our highest admiration. The following pages contain instances of his extraordinary firmness and perseverance. His followers, however, admit, that in his trials he was greatly supported by the endurance of his wife, *Khadyjah*. His dark and bloody fanaticism fills us with horror, and his cunning weakens our faith in his honesty of purpose. When he was at the grave of his mother, he publicly declared that her soul was condemned for having worshipped idols; and his judgment on his uncle and protector, the noble-minded *Abu Talib*, was equally severe. His actions were, in some instances, as cruel as his poetry: some apostates from his faith were sentenced by him to have their hands and feet cut off, and their eyes pierced with hot irons. In this condition they were thrown on the stony plains of *Madynah*. They asked for water, and it was refused to them; and so they died. Such instances of cruelty are the more characteristic of his fanaticism, as he was naturally mild, and even soft.

We shall now leave the history—indeed the first part of *Dr. Sprenger's* work does not carry it much further—and turn to his assumption of the office of prophet, or messenger of God. We shall not at present enter at all on the nature, or influence, of the doctrines which he proclaimed, and which have become the

faith of so many nations. These will be fully treated of by Dr. Sprenger, in the forthcoming portion of his work; and we trust, then, to notice them, as their very great interest and importance, in every sense of the words, demand. In the mean time, we take them up simply as a component part of his biography.

For the first forty years of his life, Muhammad was an idolator, like the rest of his countrymen; and, when he returned to Mecca, walked seven times round the Ka'bah, before he went to his own house. How long the determination to renounce idolatry and to become the preacher of a purer faith may have been floating in his mind, it is impossible to determine; but probably the visit of Zayd to Mecca may have brought his mind to the crisis. The same doubts had found their way into other minds; and opinions, which Dr. Sprenger shows to have been the germs of the Korán, had been announced before, and were known among the more thoughtful of the Arabs:—

The first Arab who, as far as our knowledge goes, preached the unity of God at the fair of 'Okátz, was Qoss of the Iyádites. This tribe was closely related to the Qorayshites, and lived in Arabia Deserta, where the Christian religion had made great progress among the Bedouins. Qoss was an eloquent orator, a distinguished poet, an equitable arbitrator, and he acquired by his wisdom the title of "the philosopher of the Bedouins." His sayings, of which we possess, unfortunately, very few and unsatisfactory specimens, were intelligible only to the initiated. He expressed, however distinctly that there was a better religion than that of the *Haram*. *Mohammad* in his youth saw Qoss; but he was dead, when he assumed his prophetic mission.

Probably, in connexion with Qoss was Omayyah of Tayif. He was a cotemporary, but somewhat older than *Mohammad*, and his life and tenets which are authenticated by his own verses, shed much light on the origin of the Islám. Abu al-Calt, the father of Omayyah, had been a distinguished poet; but was surpassed by his talented son, who was superior to most of his contemporaries in poetical genius. Omayyah made several mercantile journeys to Arabia Petræa and Syria, and studied the scriptures and the tenets of Christians and Jews; he renounced his belief in idols, and was one of those who used to speak of Abraham and Ishmael and the *orthodox* faith. The latter is the name by which *Mohammad* subsequently distinguished his own tenets from those of the Qorayshites. He also abstained from things which are forbidden according to the notions of the Musalmans, as wine, unclean food, &c. He dressed in sackcloth to do penance for his sins, and taught the Qorayshites to put at the head of their writings—"In thy name, O Lord!" instead of the form of "In the name of the merciful and compassionate God," which has been preserved by *Mohammad*. The most frequent subjects of Omayyah's poems were our future state, the resurrection of the dead, and the day of Judgment. *Mohammad* allowed that his doctrine much resembled that of Omayyah. It is said that, observing that his countrymen were ripe for a better faith, he expected to be chosen by Providence as their prophet; and to his disappointed ambition is ascribed the bitter enmity, which he conceived against *Mohammad*, when the latter assumed the prophetic office. Omayyah composed elegies on those who

had fallen at Badr fighting against the new faith : but the prophet forbade his followers to learn them by heart.

It has not escaped the attention of Arabic historians, that the great revolution of the establishment of a new religion was foreshadowed. In the introduction to the most ancient biography of *Mohammad*, we find a chapter inscribed "an account of four men, who without revelation (before *Mohammad*) saw the fallacy of Paganism," which I translate here :—"One day the *Qorayshites* celebrated an annual feast, and assembled before one of their idols. They expressed their adoration for it, slew sacrifices, surrounded it and went round it. Four men, however, kept secretly aloof, and said, 'Let us be friends and open our hearts to each other ;' and they agreed. These four men were *Waraqah*, a cousin of the first wife of *Mohammad* ; '*Obayd Allah b. Jahsh*, equally a cousin of *Mohammad*, for his mother *Omaymah* was a sister of the prophet's father ; '*Othman b. al-Howayrith* ; and *Zayd* of the '*Ady* family. One said to the others ; 'By God, you see our tribe does not know the true religion. They have corrupted the religion of Abraham, and are worshipping a stone, and walking round it, though it does neither hear nor see, and can neither do good nor harm. Friends, seek for yourselves ; for you are not in the right path.' They consequently dispersed over the country, and went in search of the orthodox faith of Abraham. Their result was as follows : *Waraqah* embraced Christianity ; he obtained the Scriptures from those who believed in them, and acquired a considerable share of knowledge from the followers of the Bible.

"*Obayd Allah* remained a sceptic until he embraced the religion of *Mohammad*. He emigrated to Abyssinia with his wife, *Omm Habybah*, who was a daughter of *Abu Sofyan*, and who had also embraced the *Islam* ; and on his arrival in Abyssinia he turned a Christian, and died as such. When he passed the followers of *Mohammad*, after he had embraced Christianity, he used to say, 'We see, and you attempt to see.' *Mohammad* married his widow, *Omm Habybah*. He sent '*Amr b. Omayyah Dhamry* to the *Negush* to woo her. The *Negush* gave her a dowry of 400 dinars, and *Khalid b. Sa'yd b. al-Ac* placed *Mohammad* in possession of his bride.

"*Othman b. al-Howayrith* went to the Emperor of the Byzantines, and professed the Christian religion. The Emperor received him with great kindness.

"*Zayd* remained as he was. He turned neither Jew nor Christian. He renounced the religion of his tribe, would not worship idols, and abstained from eating what had died of itself, blood, and what had been sacrificed to idols ; and he disapproved of burying girls alive. He used to say, 'I worship the God of Abraham ;' and he exposed the errors of his tribe. *Asma*, the mother of '*Orwah*, related that she had seen *Zayd*, when he was a very old man, leaning his back against the *Ka'bah*, and saying : 'O *Qorayshites*, by Him in whose hands the soul of *Zayd* is, none of you follow the religion of Abraham except myself.' Then he continued, 'O Lord, if I knew which form of worshipping Thee is most acceptable to Thee, I should adopt it ; but I do not know it.' Then he prayed, resting his forehead on the palm of his hands. *Ibn Ishaq* says, 'I heard that *Sa'yd*, the son of *Zayd*, and '*Omar b. al-Khattab*, his second cousin, requested the prophet to intercede for the soul of *Zayd*. The prophet said, Yes. *Zayd* said the following verses on leaving the religion of his tribe : 'Shall I believe that there is one Lord, or one thousand ? Is the government of this world divided ? I have given up *al-Lat* and *al-Ozza* ; for I am strong-minded. I neither believe in *al-Ozza* nor in her two daughters ; nor do I visit the idol of the banu '*Amr* (a branch of the banu *Asad*) ; nor do I believe in *Ghanam*. He was my Lord when my intellect was yet

weak ; but now I worship the Merciful as my Lord, in order that He, the Lord of forgiveness, may pardon my sins. Observe piety to God, your Lord ! As long as you fear God, you will not be lost. Do you observe the good ? Their abodes are the gardens of paradise, whilst the wicked will be condemned to fire. They do not prosper in life ; and when they die, they will have a fate, which will contract their hearts." *

The examples of sceptics, converts to Christianity, and prophets who preceded Moḥammad in the Hijaz, might be multiplied ; but what has been said will be sufficient to show, that the successful prophet of the Arabs, in founding a new religion, did nothing more than gather the floating elements, which had been imported or originated by others, in obedience to the irresistible force of the spirit of the time, which carries, in the beginning, the elect, but in the end, all and every thing before itself.

As the question is of vital importance, we shall quote, at the risk of a little repetition, another passage of like import :—

Who were the men, who instructed Moḥammad ? It is not likely that he would have dared to declare before them, that the doctrines, which he had received from them, had been revealed to him ; nor is it likely that, had they been alive after the new religion had become triumphant, they would have allowed him to take all the credit to himself. Those who exercised an influence upon Moḥammad were his disciples ; but we find no instance in which he appeared to buy secrecy by submitting to the dictation of others. I am inclined to think, therefore, that his instructors died during his early career ; and this supposition enables us to ascertain the names of some of them. The few specimens of the sayings of Zayd, which have been preserved, prove that Moḥammad borrowed freely from him, not only his tenets, but even his expressions ; and Zayd did not long survive Moḥammad's assumption of his office. It is likely that Waraqah, the cousin of Khadyjah, who, it would appear, brought about her marriage with Moḥammad, who was the first to declare that the Great Law would be revealed to him, and who expressed a wish to assist him during the persecutions to which every prophet was subject, was one of his teachers. Waraqah died shortly before the time when he publicly proclaimed his mission. The defence of the prophet, that the man, of whom his countrymen said that he assisted him in writing the Qorán, was a foreigner, and unable to write so pure Arabic as the language of the Qorán was, leads us to suspect that one of his chief authorities for the Biblical legends was 'Addás, a monk of Niniveh, who was settled at Makkah. And there can be no doubt, that the Rabbins of the Hijáz communicated to Moḥammad their legends. The commentators upon the Qorán inform us further, that he used to listen to Jabr and Yasar, two sword manufacturers at Makkah, when they read the Scriptures ; and Ibn Isháq says, that he had intercourse with 'Abd al-Rahmán, a Christian of Yamámah ; but we must never forget that the object of these authorities, in such matters, is not to instruct their readers, but to mislead them."

We give Dr. Sprenger's conclusion, from these and similar facts, in his own words :—

The Islám is not the work of Moḥammad ; it is not the doctrine of the Impostor ; it embodies the faith and the sentiments of men who, for their talents and virtues, must be considered as the most distinguished of their nation, and who acted under all circumstances so faithful to the spirit of the Arabs that they must be regarded as their representatives. The Islám

is therefore the offspring of the spirit of the time, and voice of the Arabic nation. And it is this which made it victorious, particularly among nations whose habits resemble those of the Arabs, like the Berbers and Tartars. There is, however, no doubt that the impostor has defiled it by his immorality and perverseness of mind, and that most of the objectionable doctrines are his.

Before we can consent fully to adopt this harsh view of his character, we must observe that Muhammadanism has been perhaps considered a little too much *en masse*, and that an analytical process might be applied to it with advantage. Islámism, or the "Islám," as comprehended in the Korán, appears to us to consist of three distinct portions, the belief, the mythology, and the legal code—all of which bear very different relations to the mind of Muhammad. Firstly, there is the belief, or key-stone of the entire fabric, around which all other religious circumstances are grouped, and for which the revelation is supposed to have been made. This belief is contained in the first sentence of the popular creed—"God is the God." Muhammad, in his long meditations, when wandering on Mount Hara, on the religion of his countrymen, by the natural operation of a powerful intellect, aided by information from without, had, we conceive, reasoned himself into a belief in the unity of the Godhead, which speedily became a vital FAITH, and may have irresistibly impelled him to communicate to others the certainty, and consequent feeling of delight which he himself experienced. So far, then, as he was a teacher of the unity of God, there is no cause to suspect him of being a deliberate impostor.

But with his new faith came also the desire of making it known to his countrymen in an authoritative form, and consequently the necessity of creating a mythological outline, which should account for his possession of this belief, and indicate himself as its accredited expositor. It is here that the first traces of deception appear. That a man of highly imaginative temperament, tinged, like many epileptic subjects, with hypochondriasis, should imagine himself, in all good faith, visited by a superior being, is at all events *possible*: but that the superior being should possess, to the person's fancy, attributes precisely similar to those described in pre-existent works, and, after miraculously instructing him to read, should dictate to him a work, of which much is not original, and much self-contradictory, is utterly incredible. It is plain, therefore, that the visits of Gabriel were described by him, with the view of influencing his countrymen to believe in his mission, he himself knowing that they had not occurred: and so the self-delusive theory must go out of court; and we are forced to the conclusion of Dr. Sprenger, that he was at last a conscious and deliberate impostor.

The question of the source, from whence those passages of the

sacred writings, which appear in the Korán, were obtained, does not yet admit of demonstration. We have, however, one great fact to guide us, that, whencesoever acquired, they were gathered rather from the Talmudic legends than the Old Testament, and from the spurious Gospels rather than those of the Evangelists. Proofs of this proposition might be accumulated by the volume; and, in fact, Dr. G. Weil of Heidelberg, in his "Biblical Legends," has accumulated a great number; but one of the most prominent instances, as regards the Old Testament, occurs in the second Sura of the Korán. Compare the account there given of the fall, with its story of Eblis refusing homage to Adam, with the simple narrative of the Scripture, and then with the Talmudic version. The Jesus, mentioned in the Korán, is not the REDEEMER of the Evangelists, but the Jesus of "Thomas's Gospel," who performs miracles, from which no result is even intended to spring. Witness the notice in the second Sura of Jesus, where he is made to say "Verily, I come unto you with a sign from your Lord, for I will make before you of clay as it were the figure of a bird, then I will breathe thereon, and it shall become a bird." The original is in the spurious Gospel above mentioned, cap. 36:—"And when the Lord Jesus was seven years of age, he was on a certain day with other boys, his companions about the same age, who, when they were at play, made clay into several shapes, viz., asses, men, birds, &c., each boasting of his work, and endeavouring to excel the rest. Then the Lord Jesus said to the boys, I will command those figures, which I have made, to walk; and immediately they moved, and the birds flew about in the same way."

It would be unpardonable to pass over the question of the fits to which Muhammad was subject, and of the place they hold in the idiosyncrasy of his mission. Dr. Sprenger, we think, has placed the subject in a new light; and we shall conclude our extracts for the present with what he has written about it:—

Some authors consider the fits of the prophet as the principal evidence of his mission; and it is therefore necessary to say a few words on them. They were preceded by great depression of spirits; he was despondent, and his face was clouded; and they were ushered in by coldness of the extremities and shivering. He shook, as if he were suffering of ague, and called out for covering. His mind was in a most painfully excited state. He heard a tinkling in his ears, as if bells were ringing; or a humming, as if bees were swarming round his head; and his lips quivered; but this motion was under the control of volition. If the attack proceeded beyond this stage, his eyes became fixed and staring, and the motions of his head became convulsive and automatic. At length perspiration broke out, which covered his face in large drops; and with this ended the attack. Sometimes, however, if he had a violent fit, he fell comatose to the ground, like a person who is intoxicated; and, (at least at a later period of his life), his face was flushed, and his respiration stertorous, and he remained in that state for some time. The by-standers sprinkled water in his face; but he himself

fancied that he would derive a great benefit from being cupped on the head.

This is all the information which I have been able to collect concerning the fits of Moḥammad. It will be observed, that we have no distinct account of a paroxysm, between the one which he had in his infancy, and the one after which he assumed his office. It is likely that up to his forty-fourth year they were not habitual. The alarm of the nurse, under whose care he had been two years before he had the former of these two fits, shews that it was the first; and the age and circumstances, under which he had it, render it likely that it was solitary, and caused by the heat of the sun and gastric irritation. The fit, after which he assumed his office, was undoubtedly brought on by long continued and increasing mental excitement, and by his ascetic exercises. We know that he used frequently to fast, and that he sometimes devoted the greater part of the night to prayers. The bias of the Musalmans is, to gloss over the aberration of mind, and the intention to commit suicide, of their prophet. Most of his biographers pass over the transition period in silence. We may, therefore, be justified in stretching the scanty information, which we can glean from them, to the utmost extent; and in supposing that he was for some time a complete maniac; and that the fit, after which he assumed his office, was a paroxysm of cataleptic insanity. This disease is sometimes accompanied by such interesting psychical phenomena, that even in modern times it has given rise to many superstitious opinions. After this paroxysm the fits became habitual, though the moral excitement cooled down, and they assumed more and more an epileptic character.

One word more on Dr. Sprenger himself. We have stated our opinion of his learning, which we hold in such esteem, that we are only sorry when, in other respects, we are compelled to criticise his work.

He has not, we suspect, the knack of book-making—a faculty, be it remembered, perfectly distinct from that of being able to compose a most valuable work. In this Part I., the mind has no sooner made itself familiar with the “History of Mecca, and the Ancestors of Muhammad,” which requires to be read more than once, than it is plunged into a bibliographical disquisition, which ought to have come first; and from which, after all, we learn nothing but a few proper names of Arabic authors, with the most meagre possible explanation of the estimation in which they are held by the author. Yet, in this chapter, more than in any other, are Dr. Sprenger’s peculiar knowledge and resources calculated to lend interest to the driest of subjects. We hope that in a second edition, he will open up his store-house, and gratify his readers with an elaborate sketch of the bibliography of Muhammadanism. If he will do this, attend a little more carefully to the idiom of the language in which he is composing, and utterly cast away one or two notes, which are unnecessary, and offensive to good taste, we venture to predict that he will yet be regarded as among the first of Biographical Historians.

- ART. III.—1. *Dry Leaves from Young Egypt, being a glance at Sindh, before the arrival of Sir Charles Napier. By an Ex-Political.* London. 1849.
2. *Scinde, or the Unhappy Valley ; by Richard F. Burton, Lieut., Bombay Army, author of " Goa and the Blue Mountains," &c.* 2 vols. London. 1851.
3. *Sindh, and the Races that inhabit the Valley of the Indus, by Lieut. R. F. Burton.* London. 1851.
4. *General Sir Charles Napier's Administration of Scinde, including his Campaign in the Hills, by Lieut. General Sir William Napier, K. C. B.* London. 1851.

SCINDE is an unhappy place ; but hitherto it has been happy in its historians and topographers. If not pleasant itself, it has been the cause of pleasantness in others. The dryness of the place has not communicated itself to those, who have undertaken to discourse upon it. Since we have settled ourselves on the banks of the Indus, authors, old and new, have taken Young Egypt in hand, and made it the theme of some very diverting volumes. Napier's *Conquest of Scinde—a History*—was anything but a dull book. There was an energy and an impulsiveness in it, which kept the reader alive over its contents. Brother William conquered sleep as ably as Brother Charles conquered the province. We might raise some objections against the book, but not on the score of dullness ; nor have we any such complaint to raise against the volumes now before us. The first two works on the list are eminently amusing ; whilst the last two contain more solid matter, which is neither heavy nor dry.

We must send our light infantry in advance. The two first works on our list are, as we have said, eminently amusing. If Scinde were the most refreshing place in the world, it could hardly have been illustrated with greater freshness of description. If it had been all gay and glittering with flowers, verdant with mossy lawns down sloping towards cool streams, dotted with bowers of bliss, a very paradise of a province, it could hardly have inspired the writers with a larger amount of that vivacity and impulsiveness, which make up the charm of the present volumes. Whatever may be the miseries of that curse-ridden country, which Ellenborough and Napier annexed to the British Empire in the East, they have not dashed the spirits of its topographers—or journal-writers—or whatever else the authors of *Dry Leaves* and the *Unhappy Valley* may more appro-

priately be called. There is no langour about them. There are no signs of exhaustion. They obviously have not been dried up by the arid climate. There is marvellous elasticity and succulence about them. But, perhaps, the phenomenon is to be accounted for by the fact, that both the "Ex-Political" and the Bombay Lieutenant wrote their books after they had escaped out of the Unhappy Valley; and that their works are properly to be regarded as songs of triumph, written in the very fulness of their gratitude and joy at the thought of having quitted it for ever. Perhaps, if they had written their books in Scinde, there would have been few traces of the abundant animal spirits, which overflow in the books before us. We laugh at dangers which are over, and cut jokes upon misery that is past.

The Ex-Political, who is believed to be Lieutenant Eastwick, and Lieutenant Burton, who appears in his own proper name, are writers much of the same stamp. They tell their stories much in the same manner. There is, as may be expected, more of the political in the former. His book contains more frequent allusions to the politics of the day. There are more records of historical events. There is something of a controversial tone about the book; but we like it extremely. The Ex-Political is a sensible plain-spoken writer—like Ben Jonson he "does all like a man." His political views are, for the most part, sound; and there is an undeniable sincerity in all his utterances. He believes that the Amírs were foully treated; and he does not hesitate to say so. "Away with evidence," he exclaims indignantly, after tearing in shreds the old flimsy veil, with which it has been endeavoured to conceal, in part, the iniquity of the usurpation of the country of the Talpúr Amírs, by setting forth that their rule was oppressive and tyrannical—"Away with evidence. Let might be right. Is there no limit to our vengeance? Has England but one word for those who sue humbly at her feet—for those who were rich, happy, at peace, till England thrust her friendship and her treaties upon them? and is that word, *Væ victis*? Oh! it is always so. Not content with conquering the native princes, we must abuse. We strip them of their territory and then proclaim them to be tyrants. We always appear as 'deliverers.' Somehow or other we always rescue the *people* of the country from the grasp of ferocious tyrants; and so we exalt our humanity, and proclaim the mighty justice of the deed we have done. It is always so. The trick is a stale one; and has lost the little vitality that it had."

And now a word about the Bombay Lieutenant. We must say

that we greatly like Mr. Burton's book. He is precisely the reverse of a dullard. He is lively—animated—picturesque. An incessant flow of animal spirits fertilises his page—the Nile of his Young Egypt. Graver critics than ourselves might say that his *Unhappy Valley* is desultory and diffuse—that it leaves no distinct impression upon the mind—and that it is rather flippant. But we are ready to forgive the offences of so lively a companion, while we travel from Dan to Beersheba in his company, and never feel weary of the talk of our companion. The book is, indeed, all “talkee—talkee.” But it is vastly diverting talk. Mr. John Bull, to whom it is all familiarly addressed, is not likely to fall asleep over it. If the said John, we repeat, has hitherto entertained a belief that there is an air of langour and exhaustion about all the utterances of us dwellers in the East, Mr. Burton is likely to drive the pestilent heresy out of his head. All here is fresh enough—all vivacious enough. It is a book, indeed, of the Young Rapid school; “push along—keep moving” might be the motto of it. The writer flies from one topic to another—is off like a shot in all sorts of unexpected directions, and sometimes leaves us quite out of breath.

The fact is that Richard F. Burton, Lieutenant, Bombay Army, is an exceedingly clever fellow. We had an occasional suspicion of this fact, when we read his work on Goa; but the *Unhappy Valley* is decidedly an advance upon the *Blue Mountains*. Its merits are not to be tested by any canons of criticism, with which we are acquainted: but it is enough for us that it is an extremely *readable* book. Perhaps, if in all sincerity we were to speak out the truth, we should say that Mr. Burton is the least bit in the world flippant. But flippancy is a more pardonable offence than dulness. The one sometimes rouses and exhilarates, the other only puts us to sleep.

But it is time that we should leave the authors and open their books—that we should begin to illustrate the felicities of Young Egypt, and the beatitudes of the Unhappy Valley—to dwell upon the multiform benignities of that fine province, which Napier's sword and Ellenborough's pen attached to our Indian empire. Let us see what was the “Ex-Political's” first impression of this splendid country:—

Well, now that one is in a new country, one must surely have some impressions. If Charles Dickens were here, what impressions he would have! All the world would soon be reading Dickens' impressions of Sindh. He would fill you three volumes of odds and ends, of striking superficialities, of grotesque little notions, shaken up together like bits of glass in a kaleidoscope, before one dull fellow could compound a chapter on the geology and extinct fishes of the country. *My* first impression was that

the Sindhis had voices of four men's power. They spoke with such a Stentorian utterance, that I thought some offence had been given, but I soon found it was their natural manner; and, after leaving Tatta, I was introduced to one of the nobles of Khyrpór, whose tone made that of his countrymen appear a whisper. Where all were loud, the loudest he! I have made a considerable détour, when travelling, to avoid this man, and on one occasion, when suffering from fever, he cruelly way-laid me, and inquired after my health with such violence, that it was very long before I recovered. You will say, then, that my first impression was not a pleasing one;—neither was my second. As my ears were tormented by harsh sounds, so were my eyes excruciated by a continual stream of the finest sand which pursued our boat across the river, and was ready waiting for us as soon as we landed on the other side. This annoyance commences about 8 o'clock in the morning and lasts till evening, when the sand-storm generally lulls and resigns the task of persecuting man to myriads of mosquitoes and sand-flies, whose stings could not be brought into operation while it lasted. The Sindhis have an odd story about this. They say that when Sulaimán (on whom be peace) ruled over genii, men, and animals, the mosquitoes brought a complaint against the wind, which they said used them spitefully, and prevented them from following their lawful avocations. Sulaimán heard their complaint with much attention, and expressed a strong desire to see them righted. "But you know," he said, "justice demands that both parties should be heard." "Call the defendant into court," said his Majesty. In rushed the wind, and the poor complainants vanished, suit and all, in a moment.

Such was the "Ex-Political's" first impression of Scinde. Now let us see what Lieutenant Burton thought of the first glimpse of the Unhappy Valley:—

"Well, I never!"

Of course not, sir. No one, man, woman, or child, ever saw the face of Young Egypt for the first time, without some such exclamation.

"A regular desert!—a mere line of low coast, sandy as a Scotchman's whiskers—a glaring waste, with visible as well as palpable heat playing over its dirty yellow surface!"

Yes, sir—yes! When last I went home on furlough, after a voyage round the Cape of Good Hope, the "Eliza" deposited me at Plymouth. In the pilot boat was an "old and faithful servant," from Central Asia, accompanying his master to the land of the pork-eater.

"Allah, Allah!" exclaimed Khudabakhsh, as he caught sight of the town, and the green hills, and the woody parks, and the pretty places round about the place with the breakwater; "what manner of men must you Feringhis be, that leave such a bihisht* and travel to such accursed holes as ours, without manacles and the persuasions of the chob!"†

You recollect, I dare say, Mr. Bull, reading in your Goldsmith, a similar remark made by one of your *compatriotes* in the olden time?

"Caractacus and Khudabakhsh be — ! Where are we to land here? Where's the wharf?"

O man of civilization, habituated as you are to quays and piers, with planks and ladders, I quite enter into the feeling that prompts the query. A long billowy sea, tipped with white, is sweeping directly into the narrow rock-girt jaw of the so-called harbour; we roll to such an extent, that if you like the diversion, you may run from one side of the quarter deck to the

* Paradise.

† The bastinado.

other, each time dipping your fingers in the pure element ; and to confuse matters still more, we have six hundred sepoys to land.

The exclamation of Khodah-buksh has often been exclaimed before. We have given at least one remarkable illustration of the astonishment of the natives of India at the thought of our seeking such a country as India, with its copper skies and its dust-laden atmosphere. But what will not money do? The *auri sacra fames* draws men to all sorts of "diggings." Whether they go to India or to California, it is all the same. They want the gold, which beatifies all climates, and makes—we can hardly say "a sun-shine in a shady place"—but a shadow in a sun-shiny one ; and reconciles all kinds of men to all kinds of fortunes. It must be a very impulsive power that sends men to such a place as the "Ex-Political" bodies forth in the following passage :—

This day we succeeded in getting out of the Manchar lake by the aid of four dhundhis (small boats,) which tugged us along at the rate of two miles an hour. Heartily glad was I to be quit of this accursed place, and turning round I quoted, with great emphasis, the Persian proverb, *Ai Khuddā chūn Manchar dashti churā dozakh sākhti*, "O God! since thou hadst Manchar, what need of creating Hell?" I am afraid one gets into the habit of saying questionable things in a language other than our own. This proverb, which sounds very glibly in Persian, has a slight smack of the profane in English. Manchar, however, if the proverb is to be applied at all, deserves its full application. It has an abominable odour, being stagnant, and in many parts dry, during the cold weather ; vast tracts of it are covered with long grass and weeds, where mosquitoes are bred in number infinite ; and the foul air and putrid mud engender every creeping thing venomous as the worms of old Nile. The natives say the length of this detestable water is twenty-five miles, and its breadth fifteen. The western shore is somewhat picturesque, but it is the picturesqueness of sterility. There are high bold mountains in the distance,

And, bosomed, 'mid the trees afar,
Bright gleams the Mosque and white Minár.

The other coast is ugly and flat. The lake abounds in fish and water-fowl. These lay their eggs on the broad leaves of the lotus, in the deep water. I observed three eggs of a dark brown colour, and three parts of a hen's egg in size, so deposited. As night fell, we moored in the Nára river, six miles from the lake. And such a night ! I request of those who enjoy the luxury unspeakable of a cool clean English bed, who are not compelled to draw aside the curtain with stealthy hand, and then, plunging with wild haste into the aperture, timorously recluse it, and shroud themselves in impenetrable gauze,—I say, I request of all such to pause and think of what we Indians undergo. Bruce tells us somewhere, that your real African heat, and that to which the highest grade is to be assigned is, when one, without clothes, and without motion, perspires profusely. I can truly say such was our state. Fanned by a pankah all night, I escaped suffocation, and listened the long hours through to the croaking of innumerable frogs and the hum of countless myriads of mosquitoes. Here, too, a new plague introduced itself to my particular notice—the sand-fly.

Your mosquito is a long, lank, pestilent fellow, that exasperates you as much with his dreary, discontented hum, as with his puncture. He is your "Trois Echelles," while your "Petit Andre" is the sand-fly, a droll little short-winged gentleman, who skips about merrily, and seems as happy as possible all the time he is putting you to the torture.

Here is another not very inviting description from Lieutenant Burton's book, which may be taken as a pendant to the above :—

On approaching Kurraichi, three of the senses receive "fresh impressions,"—three organs are affected, far more powerfully, however, than pleasantly, viz., the ear, the nose, and the eye.

The perpetual tomtoming and squeaking of native music, mingled with the roaring, bawling voices of the inhabitants, the barkings and bayings of the stranger-hating curs, and the streams of the hungry gulls, who are fighting over scraps of defunct fishes, form a combination which strikes the tympanum as decidedly novel. The dark narrow alleys through which nothing bulkier than a jackass can pass with ease, boast no common sewer : drainage, if you can so call it, is managed by evaporation, every inhabitant throws away in front of his dwelling what he does not want within, whilst the birds and dogs are the only scavengers. This, the permanent fetor, is here and there increased by the aroma of carrion in such a state, that even the kites pronounce it rather too high to be pleasant, and varied, when we approach the different bazaars, by a close, faint, dead smell of drugs and spices, such as one might suppose to proceed from a newly-made mummy. You are familiar with Boulogne, Cologne, and Rome : this you at once feel is a novelty. The people are quite a different race from what you have hitherto seen. The characteristic of their appearance is the peculiar blending of the pure Iranian form and tint with those of the Indian branch of the same family. Their features are regular ; their hair unlike the lank locks of the great Peninsula, though coarse, is magnificent in quantity and colour ; the beard is thick, glossy and curling ; and the figure is manly and well developed. The mass of the population is composed of Mohana or fishermen. The males are scattered about, mending and cleaning their rude nets ; the ladies are washing fish in foul puddles, or are carrying the unsavoury burdens homewards on their bare heads. There is every convenience for studying their figures ; the dress of the ruder sex, consisting of only the Scinde hat and a pair of indigo-coloured drawers extending from the waist to the knee. The women are habited in a kind of embroidered boddice, called a "gaj," and long, coloured cotton pantaloons, tightened round the ankle. They seldom wear veils in the streets, modesty not being one of their predilections ; nor are they at all particular about volunteering opinions concerning your individual appearance, which freedom in the East, you know, is strange. The Moslems are distinguished by their long beards, slipperless feet, and superior nakedness : Hindus, by fairness or rather yellowness of complexion, a strangely-shaped turban, a cloth fastened round the waist, a dab of vermilion between the eyebrows, and a thread hung over the left shoulder, and knotted against the right side. The descendants of African slaves abound : we meet them every where with huge water-skins on their backs, or carrying burdens fit for buffaloes.

Apropos of Garra, which Mr. Burton describes as an "unhappy hole, a dirty heap of mud and mat hovels," our author discourses on the hard fate of subalterns, who are compelled to

build houses at out-of-the-way stations, and then vituperated, from high places, for getting into debt. It is worth while to hear what he has to say on this subject:—

Some years ago, when my corps was ordered up to young Egypt, we were sent to relieve a regiment about to quit Gharra. Our predecessors had not built barracks or bungalows, because they knew that their time of field-service in Scinde was ended. But we, who had four or five years of it in prospect, found ourselves in a different position

In this part of the Unhappy Valley, sir, the summer heat often reaches 115°; for a tent add perhaps 10°.

Now 125° of Fahrenheit, lasting, mind you, for months together, is exceedingly likely to hurry and hustle one half-roasted to one's hot grave. However strong a man may be, his eyes burn, his ears sing, and his brain turns dizzy under the infliction: sleepless, appetiteless, spiritless, and half speechless, he can scarcely be said to live: at the end of the season, if he reaches it, looking at his face you would pronounce him to be in a "galloping consumption."

Build or burn, then, was our dilemma. The only chance of saving health—a soldier's all in all—was to house ourselves. But there lay the difficulty.

Let me tell you, sir, that it requires no little prudence and determination for a subaltern to live upon his pay: * setting aside the not unimportant consideration, that if, in these regions, one lives only to live within one's means, one is commonly likely to be loved by the gods and to die young. He must have no expensive tastes; such as a hankering for neatness of house and furniture, or high ideas of hospitality; he must have no ambition to distinguish himself as a sportsman, a linguist, a traveller, or a "good fellow;" he must rest content in that happy obscurity, which we are told is as excellent for man as for the ignoble part of creation. If he be a married man I defy him to do it, unless at least he can make up his mind to see his wife become a confirmed invalid, and his children pining away to spectres for want of a cold climate. Even as a bachelor, to keep out of debt, he must be favoured by circumstances as well as by nature. Now we were not. The regiment had been travelling hundreds of miles, and expected a journey of as many more, with all the expensive consequences of carriage and marching mess-bills.† And yet we found it necessary to expend two or three months' prospective pay upon brick and mortar.

Had we applied to the financial department at home, the train of reasoning would have been—

"That boy gets £20 a month: humph! 12 times 20 make 240: humph! Ah, it's always the way with these fellows in India—"

And the inevitable *ergo*,

—"I wont encourage his extravagance."

For, you know, Mr. Bull, many a papa who makes a liberal allowance to a son in one of H.M.'s regiments, would pooh-pooh at the idea of sending a farthing per annum to one in the Company's service.

The gist of which is this:—It might be desired that high authorities, when issuing their edicts to the Indian army, would be generous enough to be a little more considerate, a trifle more just. You are led, sir, to sup-

* This applies only to Scinde and the dearer parts of the three Presidencies.

† Expensive things; as the members of a mess have to pay for losses and breakage.

pose, though not told to believe, that we exult in debt; the effects of our extravagance are skilfully developed into line before your eyes, whilst the many unavoidable causes of our expenditure are as skilfully close-columned and huddled up into one corner of the rhetorical field.

It is very easy for a Commander-in-Chief, with his £20,000 a-year, or an approximation to it, to talk about the unprincipled conduct of those, who count by tens what he counts by thousands, and have the calamity to spend more money than they can make out of their subalternship. But there are circumstances, in which it is anything but easy for ensigns and lieutenants to balance their accounts; and every high official authority, who discourses upon such a text, ought to weigh well all these circumstances and make due allowance for them. It is well that these high-salaried functionaries should be a little more tolerant.

“What's done we partly may compute,
But know not what's resisted”

If, at the threshold of manhood, in the new enjoyment of liberty and independence, in the flush of youthful vigour, of high health and overflowing animal spirits, our young military officers indulge in some excesses; if they think their pay will go further than it does, and spend (if not literally “half-a-crown out of six-pence a day”) their scanty allowances faster than they come in; if they anticipate pay-day and find when the “tullub” comes, and all pressing claims are satisfied, that there are still debts to be paid out of nothing;—all that can be said on the subject is, that it is very natural, perhaps rather reprehensible: but it does not follow that these imprudent youngsters are unprincipled youngsters too. It is often ignorance, inexperience, thoughtlessness, that lead them into debt—nothing that can justly be described by a harsher name. Sometimes, indeed, it is pure necessity, some unhappy contingency, much deplored and not to be avoided, that suddenly precipitates the young man into a sea of debt. His regiment is ordered to move on. He has to provide himself with a marching establishment. The march over, he has, perhaps, to buy or to build a house; and, though his ordinary expenditure may not exceed his monthly pay, what hope is there for him, when any extraordinary demand of this nature is made upon his slender finances? The fact is, that a young officer, to ensure himself against debt, must live considerably *within* his means. He must lay by something, at the end of every month, to provide against these contingencies. This is, doubtless, what he ought to do; but to expect him to do it, is to expect human nature in general, and subaltern nature in particular, to be a little more faultless than

things of this earth are ordinarily expected to be. Therefore, we repeat that when Commanders-in-Chief draw sweeping conclusions, from facts, which they very imperfectly understand, they sometimes calumniate the character of those, whose fair fame it is their duty to protect.

We have not done with the subject, and Lieutenant Burton has something more to say upon it:—

I own that rigid economy is not the virtue of Indians. But can you fairly expect it to be? In this country many things, horses for instance, are necessities; at home they would be luxuries. Then there is always some amount of recklessness in the profession of arms. Men are separated from family and friends, and made to feel that separation too. Letters, which during the first year of expatriation arrived regularly each mail, gradually diminish in number, shrink in size, cease altogether. They know that when they return home, their relations will think and find them *de trop*—the average heart cannot stand up against ten years' thorough separation—that their friends will have ceased to care for them, that their acquaintances will have clean forgotten them. Existence, too, in India is precarious: who can tell how soon a fever or a bullet may send him to the jackals? Consequently, we are, perhaps, a little over-anxious to "live whilst we may."

Such is our apology for want of thrift.

But it is unnecessary to instruct us, that a man who deprives his servants of their wages to give champagne tiffins to his friends, is not acting like an officer or a gentleman; we are by no means grateful for such simple commentaries upon the code of honour, and, to speak plain truth, we are somewhat indignant to see that the information is deemed information by one usually so well informed as is our informer.

But what is the use of all this? You, Mr. Bull, have old, long-cherished ideas of our extravagant style of life—the memories of the last century floating in your head—and you see with delight the daring hand outstretched in might to tear up the root of the evil Bosh! Were he that chatteth with you Lt.-Gen. Sir R. Burton, G.C.B., instead of being a small lieutenant, then might he have some hope of an occasional cheer from you, to enliven his squabble with a brother veteran. Then might he, it is believed, have some little chance of winning the day, however doughty in the cacoethes of scribble, however skilful in the use of oxymoron or antithesis, however fond of the *ad captandum*, and however successful in writing pointedly, not to the point, well but not wisely, that same brother veteran may be.

But now, sir, I feel myself over-matched—weight is against me—it is "no go." Excuse the folly of tilting at a windmill strong in the breath of popular opinion and—let us order the camels.

There is a good solid foundation of truth beneath this light edifice of pleasant words. It assuredly needed not the voice of a prophet, or a hero, to declare that the giving of champagne tiffins and the cheating of servants, are acts, taken together, very discreditable to officers and gentlemen. But the officers of the army constitute a very numerous class. It would be a very extraordinary class, if it did not contain some unprincipled members. The only question is whether the conduct, rightly stigmatised by Sir Charles Napier, was sufficiently common, to draw down upon the army the reproaches insinuated in the

"Farewell order" of the redoubtable Chief. Such allusions have an ugly effect in a general order. Whatever may be their intent, their effect is to leave a painful impression on the public mind, that the general conduct of the officers of the army is open to the reproach, which can justly be levelled only at a few. That officers *have* given champagne tiffins, and left their servants' wages unpaid, is, not improbably, a fact; and Sir Charles Napier may have had in his eye one or two such offenders: but we believe that the army contains few such men, and that, if officers run into debt, it is seldom to give champagne tiffins.

Debt is one of the curses of Indian life. Fever is another. See how Lieutenant Burton feelingly describes the fevers of Scinde:—

Fevers, I may inform you, in this part of Asia, are of two kinds. One is a brisk, bold fellow, who does his work within the day, permitting you to breakfast, but placing his veto upon your dining; the other is a slow, sneaking wretch, who bumbles over you for a week or a fortnight.* The former appears as a kind of small shivering, first; then as a sick headache, which, after a few minutes, feels as if a cord were being tightened round your pericranium; your brain burns as if it were on fire; your head throbs as though it would burst; your skin is hot, and hard as a riding glove. Presently your senses leave you; to delirium succeeds congestion; you pant and puff, all your energies being applied to keeping the breath in your body—you fail therein, and are buried that evening. The slow fever attacks you much in the same way; only it imprudently allows you leisure to send for a doctor, who pours cold water from an altitude upon your shaven poll, administers mercury sufficient to stock an average-sized barometer, and blisters you, generally, with mustard and other plasters, from the nape of your neck down to the soles of your feet.

I never saw a patient recover from this necessary mode of treatment without entering into the feelings of the poor decrepit Hindu, who cursed the meddling hand which clawed the holy mud out of his mouth as he was comfortably dying upon the banks of the Ganges, and by means of a draught of "fire-water," sent him back to the world of matter, a baser bit of humanity than he was before.

There are some fevers, those of Arracan for instance, which leave their trail behind them to the latest day of the victim's life; but, be the fever what it may, there are few, we suspect, who are not content to struggle out of it alive.

* This may appear to savour of bravado, in which case the appearance is deceitful. At a distance, Yellow Jack, earthquakes, the Cuchillo, and similar strange enemies to human life, look terrible because indistinct: the heart does beat a little quicker when we fix thought upon it. But as soon as you find yourself amongst the dangers, you forget to fear them, and a little habit makes them, generally speaking, contemptible: your expected giants you find pigmies. Besides, I have been fortunate in opportunity of training, being brought up, as it were, in the midst of cholera: one easily learns to think lightly of such things in youth. And every one who thinks becomes, by some means or other, a fatalist on a small scale, after a few years in the East. "Kismet" and "Nasib" are so often, so continually, in your ears, that at last they sound themselves into a kind of reality—an entity East, a nonentity West of the Cape.

From fevers we pass by a not unnatural transition to matrimony. Lieutenant Burton's sketch of married life in Scinde is at least amusing :—

Our Scindian lady—she signifies that she wants another pipe—then entered upon life in real earnest. She was permitted by her religion to call upon her parents once a week;* she did so once a day, sometimes twice, and her husband, as might be expected, felt the results. Availing herself of the privilege of womanhood, she added smoking and the chewing of betel-nut to her other accomplishments. She spent her hours in decorating herself, not to fascinate the eye of her spouse as she ought to have done, but with the strictly feminine object of exciting the envy, hate, and malice of all her dear family, friends and acquaintances, by a display of dresses. She punctually attended all feastings and junketings, nor did she neglect the fairs at the tombs of saints, and other religious assemblies, where religion is usually the thing least thought of. She had promised, not as our ladies do, but by proxy, to “love, honour, and obey,” her Goodman: she did neither this, that, nor the other. Old Saadi, the Oriental moralist—about as moral a writer, by-the-by, as Pietro Aretino, or Pigault Lebrun—makes it the test of respectability in a house, that woman's voice should never be heard beyond its walls. The fair Scindian knows nought of Saadi, and cares about as much for his tests and his opinions: she scolded her husband with womanly vigour, loudly and unrespectably at all hours.

After the birth of the first child, the *petites misères de la vie conjugale* began to gather. The lady had been indulging a little too freely in the pleasures of—brandy. Her spouse discovered the circumstance, and chastised her corporally for the same. He should have begun that discipline earlier. Instead of bowing her head, she remarked that his face was a “black creation of God's.” He, highly indignant at the truth of the observation, retorted by many a curse in query-form, to which she replied categorically. A furious quarrel was the result. Fortunately for our visitor, Scinde then belonged to a civilized people, who systematically hang every man that kills his better half†. When the couple retired to rest that night, the husband, reflecting for the first time upon the blessings of polygamy, half determined to take to himself a second wife, and the lady indignantly running over the list of her grievances, firmly resolved to provide herself with a *cicisbeo*. She would have demanded divorce from “that man” but for two reasons; in the first place, by such step, she would have forfeited all her claims to the mahr, or settlement; and secondly, she did not anticipate much happiness in returning home to be scolded by her mother, lectured by her father, snubbed by her brothers, and be sedulously watched and guarded by all. But she did not fail, knowing how much it would annoy her husband, to call upon “dear ma” as often as possible, to detail all her miseries, and to throw “dear ma's words in his face at every opportunity.” Finally, she threatened him with her father, and complained to her brothers with such assiduity, that the spouse, quite *excédé*, presently provided her with a lawful rival, she him with an unlawful one.

* Before the birth of the first child. All the terrors of religion, stripes included, are directed against the wife who dares to visit her parents without her husband's order. What can the poor woman do but duly and openly disobey them?

† The Koranic law concerning adultery is utterly inadequate for the moral wants of any community—hence the use of the sack or the scimitar in Islam. Where we rule, we should remember that taking away a man's only means to secure his honour, it is our duty to provide him with some other preservation, which, generally speaking, we have not done.

We need hardly have gone to Scinde for such a picture as this. There are "unhappy valleys" nearer home; Christendom is not without them. This is an old story, indeed. *Mutatis mutandis*, it would suit half the civilized globe. Only, amongst us, the husband has not the resource of polygamy to enable him, while trying to escape out of one misery, to plunge profoundly into a deeper and more engulfing one. One indeed might almost believe that Lieutenant Burton had it in design to present an exaggerated sketch, under this Scindian veil, of the fashionable conjugalities of London and Paris.

There was another kind of remedy resorted to by the Scindian husband, under the native rule. But when young Egypt passed into the hands of the British, the sword was no longer suffered to be the corrector-general of female morals. On this subject Lieutenant Burton, in his more solid work on Scinde, a book full of information relating to the country and the people, which supplies the ballast so much wanting in his lighter volumes, has an interesting passage :—

Adultery and fornication were rare under the native rule; among the wealthy, the greatest precautions were taken to secure the women, and the free use of the sabre kept the lower orders of females in the right path. When we conquered the country, and forbade the husband to take the law into his own hands, the women felt, to translate a native phrase, that "the sword was no longer tied to their trowser strings." The result was, that they freely indulged in all kinds of depravity. This first burst ceased, as might be expected, after a short period, and society gradually subsided into its normal state; the lock and bolt taking the place of the knife and sabre. Belochi women are rarely sufficiently well educated to be able to read any thing but a little Persian Sindhi. Very few of them can write; and their time is chiefly taken up in spinning, making clothes, dressing, and other such occupations. They are fond of intrigue, but will not risk so much for it as the Persians and Affghans; at the same time they display more boldness than the Sindhi or Hindu women. Females of the upper classes are rather formal and serious than otherwise; contrasted with the laughing and jest-loving dames of India, they appear very grave. The use of poison is all but unknown to them, and suicide is extremely rare. Many of the widows refuse to marry again; some from bad motives, others with the idea that it would be indecent to pass into the arms of a second husband. I heard of one man who offered his sister the choice of another spouse, or to live at home in perpetual Rozo (fast); she chose the latter alternative. Some women, aspiring to the rank of Zahid (devotees), refuse to marry, and condemn themselves to a life of celibacy. Such instances, however, are rare. The Belochi females are good mothers, and particularly attentive to their religious duties; even the difficulties and dangers of a pilgrimage to Mecca do not deter them from attempting it.

But here we must leave the subaltern and give place to the General. Sir William Napier's volume arrives opportunely, not in time for us to bestow on it due critical examination, but to

enable us to give a few extracts from its pages. Like everything that comes from Sir William Napier's pen, this volume on Sir Charles Napier's administration of Scinde is clever and readable. But it is prejudiced and one-sided. The historian of the Peninsular war appears as the champion of his brother's reputation—one, not only bound to say everything that can be said in favour of his brother, but everything that can be said against those who happen not to be among the admirers of Sir Charles Napier. All this is much to be regretted. The character of the book is not historical, but controversial. It wants all the calmness and dignity of history. There are passages in it, which may be accepted as history;—but they are only passages. The book, we presume, is intended to be a continuation of the “Conquest of Scinde, a history,” but it is far less historical than that production. It is altogether in the party-pamphlet style; clever, but acrimonious; in parts, indeed, so abusive, that, in the eyes of every right-thinking reader, it will greatly damage the reputation of the historian of the Peninsular war.

The irrepressible bile of the pamphleteer very soon begins to tinge the book. He has not written twenty pages, before he breaks out into the following diatribe against the “Bombay faction,” Lord Ripon, and the Press:—

His appointment was a signal for the outbreak of malignity incredibly base, and so inveterate, that it continues to this day. Emanating originally from the Council and some of the permanent official persons of the Bombay Government, it was supported by their dependent and expectant partisans, all stung to the quick at the loss of the sinister profits in perspective from the accession of new territory. But foul, as their own bad deeds, would it be, to make this accusation without reservation or exception:—there were civilians in office, who opposed and disdained this hostility, men whose honour demands respectful acknowledgment; and amongst those highest in position and character Mr. John Warden must be named.

Incessant efforts were made by this faction to render the military government of Scinde a failure. Newspaper organs openly, and expectant tools secretly, were set to work in England and in India to vilify the victorious general; and they were countenanced and encouraged by the Directors and by the Board of Control under Lord Ripon, whose injurious and offensive conduct towards Sir C. Napier shall be exposed, because it is not fitting to respect folly when it degrades authority by insulting merit.

In July, Lord Ellenborough placed the Scindian Government in direct communication with the Calcutta Council, to relieve it from the interested meddling of Bombay. The official expectants at the last place, having then no hope, either to force their way, or to sneak into lucrative Scindian appointments, nothing was too gross for the polluted pens hired to blacken Sir C. Napier and lower his exploits. “He had not gained victories, he had slaughtered some poor half-armed people who made no resistance”—“Scinde was a waste of sand.”—“a Golgotha, foully and murderously obtained—a disgrace only to be put away by restoring its patriarchal princes.”

Then he was “an imbecile ruffian, delighting in carnage, faithless, rapacious, a liar who disgraced the army, and stained the glorious

age of Wellington."—"Why did not the sepoys rise and put an end to the fellow's doings! He had brutally torn away the ornaments of the Amirs' women and dishonoured his uniform."—"Luxuriously changing his residence to feast on the delicious pulla fish, he was encircled by parasites, who hourly promulgated shameless falsehoods to prop the reputation of his ridiculous system of Government, which all '*Old Indians*' knew must fail"—"He had taken the traitor Ali Morad to his bosom"—a traitor because he had not warred against the British troops!—"had loaded him with presents, had conferred on him the possessions of the plundered *patriarchal princes of Scinde!* and was at once his benefactor and dupe."

Foremost to predict disaster was Outram, the discarded political agent, who announced, that forty of the younger Amirs were at large; that while they were so, continual insurrections would disturb the English rule, and after ten years of guerilla warfare, the country must be restored to the fallen princes—with much more of a like bald presumptuous talk, showing the vulgar character of his mind, which could see and exaggerate difficulties, but had no resources for overcoming them. His predictions were echoed by most of the Indian, and not a few of the London, newspapers; and though the course of this work will show how the touch of genius burst these bubbles, the new governor's labour and difficulties were much augmented by these infamous arts of men, who, with official power to do evil, had hearts and heads so gorged with malice and falsehood, that there was no room left for honour or patriotism.

Inverted commas are usually supposed to denote literal quotations. Sir William Napier intends, therefore, we presume, to leave an impression on the reader's mind, that the words which he has included in inverted commas, were the very words applied by the nameless writers to his brother and his acts. But we cannot say that we are satisfied with this. If the words were ever written, it must be easy to specify by whom they were written. We have certainly no recollection of having alighted, in a tolerably extensive course of newspaper reading, upon the *elegantia*, which are here quoted by the gallant author. It behoves him, indeed, to prove that they were written, or he himself becomes the calumniator.

But proof is not much in Sir William Napier's line of business. He is only great in invective. He has a vocabulary of foul epithets to apply to every one who happens not to appreciate the blessings resulting from the conquest of Scinde and the benignities of the conqueror's "administration." The Board of Controul, the Court of Directors, the Bombay Government, Major Outram and the Indian Press, are the especial objects of Sir William's abhorrence; and he would have us believe, that they are equally malignant and corrupt. Here is another specimen of this style of bold vituperation. The immediate text is the recall of Lord Ellenborough:—

Most of the Scinde administrative measures were adopted without reference to Calcutta, because of the distance, and the Scindian sun, which left

little time for action; but always they were supported by Lord Ellenborough; and, if half the year was denied to activity by the raging heat, oppressive correspondence and all fear of responsibility was spared to the anxious administrator, by this confidence from a man, who only knew him by his exploits. It was not so with the minor authorities, on whom having the troops of two presidencies under his command, he was, in a great measure, dependent; the secret enmity of those meddling subordinates was always disquieting, and at one time drove him to declare that he would not be responsible for the discipline of his troops. These vexations were increased by a vicious habit with courts-martial, of misplaced leniency towards officers—a habit which, as Commander-in-Chief, Sir C. Napier afterwards endeavoured to reform; but at this period, it was in such mischievous activity, that two surgeons guilty of constant inebriety, while engaged in the hospital duties, were suffered to remain in the service, a source of misery, terror and death to the sick soldiers!

And now happened an event, surprising to all persons but the man affected by it, an event which rendered Sir C. Napier's after-career, one of incessant thankless labour, without adequate freedom of action. Lord Ellenborough was suddenly recalled. Not unexpectedly to himself, because he knew his Government had aroused all the fears and hatred of the jobbing Indian multitude, and all the fierce nepotism of the Directors; but to reflecting men, it did appear foul and strange, that he who repaired the terrible disaster of Cabul, should be contemptuously recalled by those whose empire he had preserved; that England and India should be deprived of an able governor, at a terrible crisis, which nearly proved fatal, to gratify the spleen of men incapable of patriotism and senseless in their anger. Sir C. Napier felt for the welfare of his country too much, to be silent on that occasion, and the following expression of his indignation, addressed to Lord Ripon, prophetic as it was, may partly account for the unmitigated hatred of those whose conduct he thus denounced.

"Lord Ellenborough has opposed peculation: but folly and dishonesty have defeated ability and honesty, which being in the usual course of human events, does not surprise me. It seems that the '*suaviter in modo*' with a Cabul massacre, is preferred to the '*fortiter in re*' with victory. To expend millions in producing bloodshed is preferable in the eyes of the Court of Directors, to saving India and the prevention of bloodshed. Lord Ellenborough's measures were taken with large views of general policy, and were all connected in one great plan for the stability of our power in India. They were not mere expedients to meet isolated cases. The victory of Maharajpur consolidated the conquest of Scinde, and the conquest of Scinde was essential to the defence of the north-western provinces of India and the line of the Hyphasis. The whole has been one grand movement to crush an incipient, but widely extended secret coalition—the child of the Affghan defeats—which would have put, probably will still put, our Indian empire in peril.

"This great defensive operation, hitherto successful in the hands of Lord Ellenborough, has not yet been terminated; nor can it be, while the Sikh army remains without control; for I fear that powerful force by no means participates in the horror of war which appears to be entertained, very properly, by the Court of Directors and Lord Howick. Yet there is a time for all things, said the wisest of men; and I cannot think the time for changing a Governor-General is, when in presence of seventy thousand armed Punjaubis. I indeed believe that possession of the Punjaub is not desirable for the Company; the Hyphasis forms a better frontier-line for our Indian territory than the line of the Upper

Indus, and is more compact now that we have Scinde : we have enough of territory—more than enough ! Nevertheless, this country of the Punjaub must be ours : all India proclaims that truth by acclamation. If not taken, the ravaging of our finest provinces can only be prevented by a large standing army of observation on the Hyphasis, with the example before its eyes of the Sikh army profiting by successful mutiny ! That Sikh army is also recruited with our own discharged men, who are in correspondence with our soldiers ; for since we have abolished flogging, every crime is punished with dismissal from the Company's service—none other is now permitted—and thus we are daily recruiting the Sikh army with our well-drilled soldiers ; for the men we discharge for trifling offences, go in great numbers to join the Punjaubis. This I do not think sagacious on our part. The question therefore is no longer, whether or not we shall increase our territory, but whether we shall hold our present position in India, or run the risk of being beaten to the sea. '*Aut Caesar aut nullus*,' applies emphatically to our present power in India.

"To destroy the Sikh army will not, I believe, be so easy, as people seem to imagine ; and if we are beaten back across the Hyphasis, as we were by the Affghans across the Indus, the danger to India will be very great ; and it will, as far as I am able to judge, show that policy to be erroneous, which leaves native princes on their thrones within our territory, or rather within our frontier. This policy was, I suppose, formerly found useful and safe ; but it is now replete with danger, when our great extent of dominion compels us to scatter our forces. To return to Scinde. Some of the Punjaubis from Multan may insult our northern frontier, a portion of which borders on the land of Sawan Mull. If so, I am determined to resent it, and I hope for the support of the supreme Government, because every insult we put up with is certain to shake the allegiance of the Beluchis in Scinde. I know that I am accused of wishing for war—that is false ! I have seen too much of it. I detest it upon principle as a Christian, and from feeling as a man. I am too old also for the fatigues of war, especially where the heat is so exhausting. My wish is to rest. Yet I will not suffer Her Majesty's arms and the Company's arms to be insulted, and patiently wait, while the enemy gathers his hordes to attack me. I take, and I will take all possible military precautions, not because I love war, but that I do not love to have our throats cut. A procrastinating diplomacy is the game of the barbarians, and whoever is blinded by it, will be defeated.

"In the Murri and Bhugti hills, the predatory tribes are now fostering the ex-Amir, Shere Mohamed, with a view to hostilities in Scinde ; and if they be not crushed when the season opens, mischief will ensue. We cannot in the heat do anything ; but I must attack them in winter if I can, though I well know it is a thing difficult to accomplish. It has indeed occurred to me to take them into our pay as the more humane course, but I fear the supreme Government will not consent to the expense : one or other course must, however, be pursued, or a very large force must be constantly maintained at Shikarpur. An attack on those people may, possibly, hasten a war in the Punjaub ; but I am daily more disquieted about our Scindian frontier ; I do not clearly see how far this border warfare will go, and I well know it is the most difficult and dangerous to conduct that can possibly be. All within Scinde is tranquil."

When Lord Ellenborough was thus recalled, by an act of arrogant power so indefensible as to force from the Duke of Wellington, the only passionate censure he was ever known to use with respect to public affairs, the oligarchs, who perpetrated the wrong, proceeded consistently, but shame-

fully and ungratefully, in India and in England, to assail the general, whose victories and administrative talents consolidated that policy by which the recalled nobleman had re-established their tottering empire. Foully they assailed him through every channel that corruption and baseness could penetrate,—that is to say, as a corporation; for amongst the Directors of the time, were men too honourable to engage in such passages; but as a body, they did encourage expectant parasites to assail Sir C. Napier with such vituperation, as only parasites are capable of: nor did they confine this enmity, as shall be shown, to revilings and falsehoods. There is, however, a time for baseness and a time for virtue to triumph—there is also a time for retribution—and it came. Bending in confessed fear and degradation, these trafficking oligarchs were afterwards forced by the imperious voice of the nation, to beseech the commander, they had so evilly treated, to accept of higher power and succour them in their distress! God is just!

There is more to be said about this passage than we have time to say on the present occasion. That Lord Ellenborough “repaired the terrible disaster of Kabul,” is a statement, which history will hardly accept, even on the authority of the admirable historian of the Peninsular war. It is true, as shown by Mr. Kaye, in his recent narrative of the Afghan campaign, that Lord Ellenborough declared his determination to save India, in spite of every man in it, who ought to give him support; but we are inclined to think with that writer, that Pollock and Nott saved India, in spite of Lord Ellenborough. The reparation of our Kabul disasters was in Lord Ellenborough’s administration, but hardly of it. We had always believed, that the “terrible disaster of Kabul” was repaired by Pollock and Nott upon their own responsibility. It was Lord Ellenborough’s extreme good fortune to find these men in command of the armies of Afghanistan, when he entered upon his administration. They were made of such good stuff, that he could not spoil them. He seems to have done his best to inoculate them with his own infirmity of purpose, and to restrain the military impulses, which prompted them to the re-conquest of the country from which we had been so ignominiously driven; but he did not succeed. It appears to us, therefore, that the statement, that the Court of Directors recalled the man who saved their Indian empire, is the very reverse of the truth. If our Indian empire was really in jeopardy at this time, and was saved by the victories of Pollock and Nott, it was saved, not by Lord Ellenborough, but in spite of him. The “large views of general policy” and the “one great plan for the stability of our power in India,” are certainly not to be found in Lord Ellenborough’s correspondence, public or private, during the critical year 1842. There is nothing, indeed, more remarkable in it than the utter absence of everything like a plan—of everything that can, by any possibility, be accepted as an indication of “enlarged views.”

The concluding paragraph of this long extract is very characteristic of the writer and his work. It is in Sir William Napier's "later style." A curious monomania seems to have taken possession of the minds of the two generals. Though curious, however, we believe it is not an uncommon form of insanity. We have often heard of people possessed of an incurable delusion, to the effect, that they are surrounded by conspirators, who are eternally plotting their destruction. The Napiers see daggers in the air. They are hedged in by traitors and murderers, eternally stabbing at their reputations. Every one, who says a word against them, is a hired assassin. They seem to think, that the Court of Directors, the Board of Controul, and the Bombay Government, have had nothing to do, since Sir Charles conquered Scinde, but to set murderers on his track, and to hunt down his reputation. There is a *bête noire* ever before their eyes. In Sir William Napier's books, and Sir Charles Napier's letter, the able Editor of the *Bombay Times* figures as a stipendiary assassin, with instructions from the Bombay Government and the Court of Directors, to track Sir Charles from place to place, and to be perpetually stabbing him in the back. All this is childish—contemptible. None, but very weak or very vain people attribute to base motives, every thing that is said against them. They talk about hireling pens, either because they are under one of those hopeless delusions, which peoples the air with enemies, or, because, in the overflow of their self-love, they believe that they are beyond the reach of honest disapprobation. But the Napiers are the last men in England, who have any right to complain, that hard words are used against them; for, of all public writers and speakers, they are the foulest and the most unscrupulous. They give better than they take. Men who are so fond of abusing others should not whine when they are abused themselves.

Here is a bit more in the same strain :—

At Bombay, when the fear of Lord Ellenborough was removed, it became difficult to say whether malignant ferocity, or spiteful meanness were most predominant in the hostility displayed. Vessels, which, previous to that nobleman's recall, had been regularly despatched with the mail for Scinde, were, on his departure, stopped; and the public correspondence, continually delayed, accumulated so as to make it nearly impossible to conduct it with propriety; while, with respect to private correspondence, Sir C. Napier had to endure frequent loss of letters, and to find in the *Bombay Times*, the avowed organ of the faction, sneering allusions to the contents of some which never reached him! The enmity of the official people even descended to harass him by demanding forty pounds sterling daily for his simple food, without wine, on board a Government steamer, when going up the Indus to hold the great Durbar—a charge designed, not so much to obtain money, as to impose an additional heavy correspondence on him; and when he successfully resisted this attempt at extortion, worthy of a

Swiss inn keeper, the newspapers were directed to impute avarice !—avarice to a man, who was at the moment proposing to the supreme Government, a reduction of his salary : and who, in a long life, has only regarded money as enabling him to confer on others the ease and comfort he denied to himself ! “ It is thus they make war on me,” he wrote on this occasion “ It is thus they endeavour to prevent the success of Lord Ellenborough’s policy ; but that policy is good, and, if necessary, I will die sword in hand to support it—when I shrink, let them sing their song of triumph over me and over their country.”

And again :—

It was this subtle policy, coupled with the growing attachment of the whole Scindian population, which had brought the hundred and fifteen western chiefs to make salaam at Kurrachi : and the display of force there had acted powerfully on their after-conduct ; but their previous recusancy had been principally caused by the falsehoods of the Bombay faction, published in the *Bombay Times*. Continually announcing the restoration of the Amirs, that faction had disquieted all the chiefs and sirdars, and had actually prevented Nowbutt and Guddi from accepting the frequent invitations made to them for becoming good subjects. Those chiefs therefore died, the first in prison, the second on the gallows—criminals indeed, but also miserable victims to the infamous arts of Dr. Buist and his employers. Nowbutt and Guddi could have been captured at an earlier period ; but that event was purposely delayed ; partly, in the hope they might submit, partly, that their sudden seizure, when the General was in their country, might produce a greater effect on the surrounding tribes, which would conduce to tranquillity, while the army was beyond the frontier.

During the march up the country, the spies had brought varying intelligence of what was passing with the robber tribes, and with the Khan of Khelat. That prince was vacillating. Afraid to hold the conference at Dadur, and equally afraid to refuse, he took a middle course, avoiding the meeting, while, to deprecate anger, he assembled troops and pretended to drive Beja Khan from Pulagi. This was easily seen through : and therefore the General’s march was delayed under various pretences, until the Khan should be compelled to abandon Pulagi again from want of water, it being judged that Beja would then, if the whole were not a concerted fraud, harass him in his retreat. These proceedings were very embarrassing, because the plan for a surprise required that Beja should be at Pulagi, and nothing could be undertaken until he returned ; but from Fitzgerald at Larkana, such information was finally obtained as produced a modification of the original scheme, and gave rise to new combinations, which cannot be understood, until some strange and some unexpected obstacles have been noticed.

Both Lord Ellenborough and Sir Henry Hardinge approved of the projected campaign, and both had given discretionary power for the execution ; but, when Lord Ripon was informed of the matter, a scene of odious arrogance was opened. Sir C. Napier had told him of the great loss of human life and property caused by the incursions of hill-men—had told him of the disgraces and losses which befel the troops, of whom and of their followers more than three hundred had been slain—had told him of villages in ashes, of whole districts abandoned by the wretched inhabitants—of hundreds of murdered women and mutilated children ! He had pointed out the evils to be apprehended from a continuance of this state of affairs, not only to Scinde, but to all India, and shown him, that ultimately those robbers, then above eighteen thousand strong, besides their armed servants,

would infallibly increase to a powerful army, and force the supreme Government, either to abandon Scinde, and with it, the navigation of the Indus and all its prospective commercial and military advantages, or to keep up a great force in Scinde at an enormous expense, and yet still be subject to continual losses from the same cause. To all these representations Lord Ripon's answer was, "*You make too much of these trifling outpost affairs, which are insignificant !*"

Such arrogant imbecility impels history beyond the bounds of passionless narrative. What to Lord Ripon, satiate with luxurious ease, were the unceasing labours of officers and soldiers under a sun, which shrivelled up brain and marrow, as a roll of paper is scorched up by fire? What to him was their devotion, what their loss of life? What to him were devastated districts, ruined villages, the cries and sufferings of thousands driven from their homes by those remorseless robbers? What to him were outraged women, and the screams of mutilated children, holding up their bleeding stumps for help to their maddened mothers? *They were trifling, were insignificant!* For a moment indignation was excited in the lofty mind thus insulted: but it soon subsided to contempt. Lord Ripon was disregarded as a man devoid of sense and right feeling; and the expedition went on without his concurrence.

There is more in the same strain, pitched, indeed, in a higher key: but our readers must already have had more than enough of this kind of writing. In Chapter XI., there is a long passage about the "Bombay faction" and Buist, which we cannot but consider discreditable, even to a party pamphleteer. We need not say that such writing provokes retaliation, and that, if hard things are sometimes said and written against the Napiers, the Napiers are, by no means, slow to wipe off the score.

But there are, fortunately, better things than these in Sir William Napier's book. Into the question of the internal administration of Scinde under the conqueror's Government, we cannot now afford to enter. We leave that subject, which, indeed, we have already discussed, perhaps for future consideration. This article is, altogether, of a lighter kind; and it is more in accordance with the intent of it to cull a passage or two from the volume before us, illustrative of the narrative portion of the work. The following incident is very well told. It is an episode in the story of Sir Charles Napier's hill campaign:—

When the second camp was pitched, his knowledge of a prowling warfare and the ferocity of the robber warriors induced Sir C. Napier to order that no man should go beyond certain precincts. But always a certain thoughtless negligence, where personal danger is involved, characterizes young British officers and soldiers. Captain John Napier, the General's nephew, McMurdo his son-in-law, and Lieutenant Byng his aide-de-camp, seeing small bands of the hill-men assembling on a rocky height in front, as if to save the distant herds, went towards them. As they approached, fearing an ambuscade, Byng was sent back for some cavalry, but the two others soon had occasion to acknowledge the prudence of their General; for round a rocky knoll came galloping a gallant robber, mounted on a small mare of great activity, himself of a fine presence,

clothed in a wadded armour, and bearing a matchlock and two swords. he had a fine courage also, or he would not have hovered so close to the camp with such a pageantry of weapons, immediately after a defeat.

McMurdo fell upon him sword in hand; and some time they fought, wheeling in circles, and closing without advantage on either side, save that the mare was wounded. Napier looked on, too chivalric to interfere in so fair a fight, but at last McMurdo, who had already ridden the same horse sixty miles, said, "John, I am tired; you may try him." The other, of a slight make, but with as bright and clear a courage as ever animated a true English youth, advanced; and all three were soon at full speed—the Belúchi making a running fight. Suddenly the latter turned in his saddle and aimed with his matchlock, being then only a horse's length in front; it missed fire, and, as Napier rapidly discharged his pistol, McMurdo, a man of ungovernable fierceness in combat, thinking the report was from the matchlock unfairly used, dashed pistol in hand past his comrade—who in vain called out not to kill—and shot the daring fellow as he was drawing his second sword. Then ensued a scene singularly characteristic. The young men alighted, McMurdo reproaching himself for using a pistol when they were two to one, and both with great emotion tried to stop the blood flowing from their dying antagonist, while he, indomitable, clutched at his weapon to give a last blow: he was unable to do so, and soon after expired.

This is very well told. There is only one fault to be found with it, namely, that the sympathies of the reader are more likely to be on the side of the enemy, than that of our own countrymen.

We have alluded, with reference to a passage in one of Lieutenant Burton's works, to the old Scindian habit of settling conjugal differences with the sabre, and of its suppression under British rule. The following passage, in Sir W. Napier's book, affords a curious illustration of the subject:—

Whenever a woman was guilty of infidelity, or even suspected—and that suspicion was excited by trifles, and often pretended from interested views—one man would hold her up by the hair, while another hewed her piecemeal with a sword. To kill women on any pretext was a right assumed by every Belúchi; and they could not understand why they were to be debarred. A man had been condemned for murdering his wife; his chief sued the General for pardon. "No! I will hang him." "What! you will hang a man for only killing his wife?" "Yes! She had done no wrong." "Wrong! No! but he was angry! why should he not kill her?" "Well, I am angry, why should not I kill him?" This conviction of their right to murder women was so strong, and, their belief in fatalism was so firm, that many executions took place, ere the practice could be even checked; but, finding the General as resolute to hang as they were to murder, the tendency after a time abated, and, to use his significant phrase, "the gallows began to over-balance Mahomet and predestination." They were, however, a stubborn race. and their contempt of death may be judged of by the following anecdote, chosen rather for its forcible portraiture, than its singularity as to the indifference displayed. A Belúchi, condemned for murder, walked to execution, conversing with calmness on the road; when turned off, the rope broke; and he fell, but started up instantly, and, with inexpressible coolness, said, "*Accidents will happen in despite of care! try again!*"

How Sir Charles Napier suppressed Satti in Scinde is also shewn in the following passage:—

He also put down the practice of Sattis, which, however, was rare in Scinde, by a process entirely characteristic. For, judging the real cause of these immolations to be the profit derived by the priests, and, hearing of an intended burning, he made it known that he would stop the sacrifice. The priests said it was a religious rite, which must not be meddled with; that all nations had customs which should be respected; and this was a very sacred one. The General, affecting to be struck with the argument, replied, "Be it so. This burning of widows is your custom; prepare the funeral pile. But my nation has also a custom. When men burn women alive, we hang them, and confiscate all their property. My carpenters shall therefore erect gibbets on which to hang all concerned, when the widow is consumed. Let us all act according to national customs!" No Satti took place then or afterwards.

This is very good, though clearly borrowed from the story which Mr. Miller relateth in this wise. Once on a time a miscellaneous party met at a tavern. One of the party, seeing a Scotchman present, stood up and stated that he was subject to a very unfortunate propensity, which he had long struggled to overcome, but in vain. The propensity was this, that when the bottle had gone freely round, he was irresistibly impelled to rail against Scotland and the Scotch. He therefore hoped that, if the fit should come on him on the present occasion, no member of the company would take the slightest offence. Whereupon up rose the doughty son of the 'land of brown heath,' and stated that he for one should take no offence at such an occurrence. In fact he had every reason to sympathize with the unfortunate victim of it, as he also was afflicted with an equally irresistible propensity of a different kind, which consisted in this, that when the bottle had gone freely round, and he heard a whisper breathed against his country or his countrymen, he never could resist the propensity to rise and kick the whisperer down-stairs. He therefore trusted that if the fit should seize him on the present occasion, no member of the company would take the slightest offence!

It is well known to all the world, that Sir Charles was just in time to be too late to take part in the operations of the second Sikh war. When he reached India, the battle of Gujerat had been fought, and the war was at an end. It is known too, but not so universally, that he also had the misfortune to be "just in time to be too late" to take part in the operations of the first Sikh war. Sir Charles had sketched out the plan of a campaign, and Sir William seems to think it very hard upon his brother, that he was not suffered to carry it into effect. Expert as the historian is in discovering grievances, it appears to

us that there is nothing to match what is set forth in the following:—

While the Scindian British army was being assembled, the battle of Ferozshuhr was fought on the upper Sutlej, with so little advantage, that the contending forces remained in observation on the English side of the river; and a powerful corps was necessarily detached under Sir Harry Smith to protect the communications, then menaced near Ludiana by an auxiliary Sikh force. In this state of affairs the Governor-General suddenly ordered Sir C. Napier to direct his army on Bhawalpur, and repair himself to the great camp on the upper Sutlej; a journey not to be safely made without an escort for several days, which would have been slow for the occasion; but the fighting camel corps was here again made available, and the speed was as a courier's. He reached the camp at Lahore on the 3rd of March, yet only to find that the battle of Sobraon had been gained, that a treaty was in progress, that his well-devised campaign was nullified, and his life endangered by the combined action of mental and bodily fatigue for no object! Anticipated fame, health and independent command had been snatched away at once; and, worse than all to his spirit, he found that when the Punjaub was actually lying bound at the feet of England, if he had been allowed to conduct the operations as he had projected, the war was not to be continued by the main army—peace, with the certain contingent of another war, was to be substituted for complete conquest. He was received by the Governor-General with honour and very great kindness, by the soldiers with enthusiasm; and in Durbar he was treated by Gulab Sing, then going to be raised to the sovereignty of Cashmere, with such a marked respectfulness of demeanour, as to indicate that he had adopted the general opinion as to the "*nussul*" or fortune of the Scindian conqueror, which the Beluchis rudely expressed by saying it was "*a cubit longer than that of any other man.*" But his mission was nought: and, after a few days' stay, he had to return to Kurrachi, where he arrived in April, suffering in health from this useless continuous journey of eighteen hundred miles under an Indian sun.

While at Lahore, he saw and reflected on the difficulties arising from the advanced season, and the absolutely denuded state of the British army: and, as his own projected auxiliary invasion of the Punjaub, which would have insured entire conquest without imposing further operations on the main army, was set aside, he judged negotiation advisable; but his opinion was adverse to the general policy pursued. He had, before hostilities commenced, declared his belief that the British empire in India was not ripe for a frontier on the upper Indus; yet as circumstances had forced on this war, and the Punjaub was virtually subdued, he thought the conquest should and might have been consolidated without further bloodshed; whereas—"if a puppet king like *Dulip Sing*, and a real monarch like *Gulab*, were established, the battle would have to be fought again, rivers of blood would flow, and the result might be doubtful." He said so: and in two years Multan, Ramnuggur, Chillianwallah and Gujerat, bore red-handed testimony to the truth of the prediction.

It has been said, with sufficient authority to assume the fact as historical, that his projected campaign was thus stifled, to have his aid on the upper Sutlej, where, previous to the victory of Sobraon, the war bore a dark aspect. This was a flattering recognition of merit; but having been productive only of mortification and evil to the object of it, gives the right of examination as to the possible public benefit.

Sir C. Napier, with fifteen thousand men, so well organized, disciplined and provided, and wrought to such frenzied eagerness for bat-

tle, was, his great reputation with the nations around considered, worth another man with thirty thousand; and his line of operation was, politically and militarily, a true one for an auxiliary force. He had a sure base and retreat on well-furnished fortresses; his power would have been magnified extravagantly, when he had crushed Mitterkote and invested Multan; and, as nearly the whole of the warlike population on the left bank of the Indus were in secret communication with him and ready to join him in arms, he would have decisively influenced the operations on the upper Sutlej. Indeed the mere appearance of his army at Rori had so terrified the southern Sikhs, that the Dewan had secretly treated for the surrender of Multan; and, an influential native in another quarter being ready to obey his secret orders, he was very justly confident of reaching Lahore without a check, and with the Dewan and Multan Sikhs as auxiliaries. In fine the campaign was in his hands, that is, using his own words, "*as far as man could know of war; for, if Fortune take offence, she can make a straw ruin an army*"

Was it wise to cast away such moral and material advantages, to call such a General from a country and a people so perfectly known to him, and (no slight consideration) knowing and fearing him as though he were a demon in battle—to call him at a critical moment to a country and people of whom he knew nothing? And for what? To have one man more in a council, where perhaps there was already one too many; and where, unless some very unusual arrangement was contemplated, he must naturally be regarded with jealousy. Ignorant of the resources on either side, he could only have advised hesitatingly, and could not act at all. Meanwhile his own army was thrown entirely out of the scheme of operations by being moved to Bhawalpur, where it was palsied and without sure communications, for the river was thus rendered useless as a communication, and an invasion of Scinde was invited, which would have thrown all the encumbrances of the force upon the grand army.

It really appears to us that all this is very puerile. Sir William Napier is continually setting forth that poor Sir Charles, in the performance of his duty as conqueror and administrator of Scinde, had to endure much fatigue and expose himself to a bad climate, as though all soldiers sent into the Unhappy Valley had not to endure this. But here the pamphleteer seems to imply, that because Sir Charles Napier joined, at some cost of labour, the Governor-General's camp, and because he was described as the devil's brother, and the troops were in a state of frenzied eagerness for battle, Sir Henry Hardinge ought to have reversed his own wise policy and let slip Napier and his battalions against an enemy raised for the express purpose of eliciting a new demonstration of the courage and the skill of the victor of Meaní! With one more extract from Sir William Napier's book, we conclude our notice of this recent work on Scinde:—

As Sir C. Napier had now returned to Sukkur, after making, as it were, the round of Scinde in conquest, a recapitulation of his labours will not be misplaced. Short it shall be, yet thick with great actions. Two years only had elapsed, since he had quitted Sukkur to war on the Amirs: and in that time he had made the march to Emaum-ghur in the great desert, gained

two great battles, reduced four large and many smaller fortresses, captured six sovereign princes, and subdued a great kingdom. He had created and put in activity a permanent civil administration in all its branches, had conciliated the affections of the different races inhabiting Scinde, had seized all the points of an intricate foreign policy, commenced a number of military and other well-considered public works, and planned still greater ones, not only suited to the exigencies of the moment, but having also a prospective utility of aim. In the execution of these things, he had travelled on camels or on horseback, at the head of troops, more than two thousand miles; had written, received, studied and decided on between four and five thousand official despatches and reports—many very elaborate—beside his private correspondence, which was extensive, because he never failed to answer all persons, who addressed him, however humble or however unreasonable. He had besides read, not hastily, but attentively, all the diaries of the collectors and sub-collectors, and had most anxiously considered the evidence in all capital trials. And these immense labours were superadded to the usual duties imposed by the command of a large army, belonging to four different Governments, namely, of England, Calcutta, Bombay and Madras. They were sustained without abatement under severe attacks of illness, at the age of sixty-three, by a man covered with wounds, and in a climate where the mercury rises to 132° in artificially-cooled tents. They were sustained also amidst every mortification, every virulence of abuse, every form of intrigue, which disappointed cupidity could suggest to low-minded men, sure of support from power, to him ungrateful, but to their baseness indulgent and rewarding.

We have no objection to give Sir Charles Napier credit for all that he has done—but the foregoing passage would have been just as effective without the concluding lines. An incurable monomania seems to beset the Napiers. It is not enough for them to claim credit for heroic exploits against a foreign enemy—they must make it appear that they have to contend also against domestic enemies; and that half the world are bent on thwarting the great, heroic, and philanthropic efforts of one of the greatest conquerors and administrators of the age.

POST SCRIPTUM.

We did intend, at one time, to have devoted a special article to Lieut. Burton's "Goa and the Blue Mountains;" but while there is much in that work to attract, there is so much more to repel, and even to disgust, that we eventually threw it aside. Mr. Burton (we trust, chiefly from affectation and bad taste) pictures himself in many passages as a sort of Tittlebat Titmouse, without even *his* occasional flashes of spirit; while the latter part of his work evinces powers of mind and observation, very unusual in so young a writer, and very incompatible with the impressions we receive from other portions of his volume. As a specimen of his better self, we extract his account of the Moplahs.

It contains the best and the fullest information we have ever

met with, on the antecedents and present condition of these dangerous fanatics; and we are confident that it will be read with interest, both in this country and in England:—

We are informed by the Moslem historians that their faith spread wide and took deep root in the southern parts of Western India, principally in consequence of the extensive immigration of Arabs. It may be observed that the same cause, which provided the Hindus with serfs, supplied the stranger with proselytes: a Rajah would often, when in want of money, dispose of his outcastes to the Faithful, who, in such cases, seldom failed to make converts of their purchases.

The Moplahs, or Mapillahs,*—the Moslem inhabitants of Malabar—are a mixed breed, sprung from the promiscuous intercourse that took place between the first Arab settlers and the women of the country. Even to the present day, they display in mind and body no small traces of their mongrel origin. They are a light-coloured and good-looking† race of men, with the high features, the proud expression, and the wiry forms of the descendants of Ishmael: their delicate hands and feet, and their long bushy beards,‡ show that not a little Hindu blood flows in their veins. They shave the hair, trim the mostachios according to the Sunnat,§ and, instead of a turban, wear a small silk or cloth cap of peculiar shape upon their heads. The chest and shoulders are left exposed, and a white or dyed piece of linen, resembling in cut and colour, the “lung” or bathing cloth of Central Asia, is tied round the loins. The garment, if we may so call it, worn by the males, does not reach below the calves of the legs, whereas the fair sex prolongs it to the ancles. Unlike the Hindu inhabitants of Malabar, the upper portion of the female figure is modestly concealed by a shift buttoned round the neck, with large sleeves, and the opening in front: according to the custom of the Faithful, a veil is always thrown over the head.

The only peculiarity in the Moplah lady's costume is the horrible ornamenting of the ear. At an early age, the lobe is pierced, and a bit of lead, or a piece of Shola wood|| is inserted, in order to enlarge the orifice. After a time the lobe becomes about the size of a crown-piece, and a circle of gold, silver, or palm-leaf, dyed red, white, or yellow, is inserted into it—the distended skin of the lobe containing and surrounding the ring. There is something peculiarly revolting to a stranger's eye in the appearance of the two long strips of flesh instead of ears, which hang down on each side of the head in old age, when ornaments are no longer worn.

* There are three different derivations of this word. Some deduce it from the pure Hindustani and corrupted Sanscrit word *ma* (a mother,) and the Tamul *pilla* (a son), “sons of their mothers,” the male progenitor being unknown. Others suppose it to be a compound of *mukkul* (a daughter) and *pilla* (a son), “a daughter's son,” also in allusion to their origin. The third is a rather fanciful derivation from Mokhai-pilla “sons of, or emigrants from, Mocha,” in Arabia.

† This description applies exclusively to the higher orders; the labouring classes are dark and ill-favoured.

‡ The genuine Arab, especially in Yemen and Tehamah, is, generally speaking, a Kusaj, or scant-bearded man; and his envy, when regarding the flowing honours of a Persian chin, is only equalled by the lasting regret with which he laments his own deficiency in that semi-religious appurtenance to the human face.

§ The practice of the Prophet, whom every good Moslem is bound to imitate, even in the most trivial and every-day occasions.

|| The *Æschynomene paludosa*, a wood of porous texture, which swells when water is poured upon it. Lead is sometimes used to distend the flap of the ear by its weight.

The countenance of the Moplah, especially when it assumes the expression with which he usually regards infidels and heretics, is strongly indicative of his ferocious and fanatic disposition. His deep undying hatred for the Kafir* is nurtured and strengthened by the priests and religious instructors. Like the hierarchy of the Moslem world in general, they have only to hold out a promise of Paradise to their disciples as a reward, and the most flagrant crimes will be committed. In Malabar they lie under the suspicion of having often suggested and countenanced many a frightful deed of violence. The Moplah is an obstinate ruffian. Cases are quoted of a culprit spitting in the face of a judge, when the warrant of execution was being read out to him. Sometimes half-a-dozen desperadoes will arm themselves, seize upon a substantial house, and send a message of defiance to the collector of the district. Their favourite weapon on such occasions is the long knife that usually hangs from the waist: when entering battle, they generally carry two, one in the hand, and the other between the teeth. They invariably prepare themselves for combat by a powerful dose of hemp or opium, fight to the last with frenzied obstinacy, despise the most dreadful wounds, and continue to exert themselves when a European would be quite disabled—a peculiarity, which they probably inherit from their Arab† ancestors. Like the Malay, when he runs a-muck, these men never think of asking for, or giving quarter: they make up their minds to become martyrs, and only try to attain high rank in that glorious body by slaying as many infidels as they can. At times they have been eminently successful. On one occasion we heard of a rencontre, in which about a dozen desperate robbers, dropping from the window of a house into the centre of a square, inopportunistically formed by a company of sepoy, used their knives with such effect upon the helpless red-coats' backs, that they ran away with all possible precipitation. The result of a few such accidents is, that the native soldier cannot always be trusted to act against them, for, with the usual Hindu superstition and love of the marvellous, he considers their bravery something preternatural, and connected with certain fiendish influences.

In former days, the Moplahs played a conspicuous part among the pirates who infested the Malabar coast. Marco Polo mentions that there issued annually "a body of upwards of one hundred vessels,‡ who captured other ships and plundered the merchants." He alludes to their forming what they called a ladder on the sea, by stationing themselves in squadrons of twenty, about five miles from each other, so as to command as great an extent of water as possible. But in the old Venetian's day, the corsairs appear to have been by no means so sanguinary as they afterwards became. He expressly states, that when the pirates took a ship, they did no injury to the crew, but merely said to them, "Go and collect another cargo, that we may have a chance of getting it too." In later times, Tavernier describes them as blood-thirsty in the extreme. "The Malavares are violent Mahometans and very cruel to the Christians.§ I saw a barefoot Carmelite

* A name, by no means complimentary, applied to all who are not Moslems.

† The descendants of the Wild Man have at all times been celebrated for obstinate individual valour, and enduring an amount of "punishment," which seems quite incredible.

‡ Manned in those days by Hindus. Marco Polo tells us that the people of Malabar are idolators, and subject to no foreigner.

§ Who retorted by hanging them on the spot, or throwing them overboard. This style of warfare was productive of great barbarities. There is a pile of stone rising above the sea, about seven leagues north-west of Calicut, called the Sacrifice Rock, from the slaughter of the crew of a Portuguese vessel, which was captured by the Cottica cruisers, shortly after the settlement of the Christians in India.

frar, who had been taken by the pirates, and so tortured, in order to obtain his ransom,* that his right arm and one leg were shorter by one-half than the other." He alludes to their audacity in attacking large armed vessels with squadrons composed of ten or fifteen barques, each carrying from two hundred to two hundred and fifty men and describes their practice of boarding suddenly and setting fire to the ship with pots of artificial fire. The style of defence usually adopted was to prepare for them by closing the scuttles, and swamping the deck with water, to hinder the fire-pots from doing execution.

The Moplahs being now deprived of their old occupation, have addicted themselves, in some places, to gang-robbery and smuggling. The principal contraband articles are tobacco and salt, both of which are Government monopolies.† To strengthen their bands, they will associate to themselves small bodies of Nairs and villains of the lowest Hindu castes, who shrink from no species of cruelty and outrage. But, generally speaking, especially in the quieter districts of Malabar, the Moplahs and the Nairs are on terms of deadly enmity. The idolators, who have been taught to hate the Faithful by many a deed of blood, would always act willingly against them, provided that our rulers would ensure subsistence to their families, according to the ancient custom of the country.‡ Both are equally bigoted, violent, and fond of the knife. In few parts of the world are there more deadly feuds than in this province; and whenever a Nair is killed by a Moplah, or *vice versa*, the relations will steep a cloth in the dead man's blood, and vow never to lose sight of it, till they have taken revenge upon the murderer.

Near the coast, the Moplahs are a thriving race of traders, crafty, industrious, and somewhat refined by the influence of wealth. Those of the interior cultivate rice and garden lands. Some few of the latter traffic: but as they do not possess the opportunities of commerce enjoyed by their maritime brethren, their habitations and ware-houses are not so comfortable, substantial, and spacious. Both of them have a widely diffused bad name. Among the people of Southern India generally, the word Moplah is synonymous with thief and rascal. All are equally celebrated for parsimony—a Hindu, as well as an Arab, quality, and for rigid observance of their religious rites and ceremonies. The desire of gaining proselytes is one of their ruling passions; consequently Islam is steadily extending itself. The zeal of its followers is well supported by their means; and the willingness with which they admit new converts, even of the lowest and most despised classes, to perfect social equality with themselves, offers irresistible attractions to many wretched outcasts of Hinduism. They transgress the more laudable ordinances of their faith, and yet cling fondly to its worst spirit. They will indulge to excess in the forbidden pleasures of distilled waters and intoxicating drugs, in immorality and depravity; at the same time they never hesitate to protect a criminal of their own creed, and, to save him, would gladly perjure themselves, in the belief that, under such

* The sum usually paid was from eight to ten shillings, a portion of which went to the Rajah, part to the women, who had lost their husbands in these predatory encounters, and the remainder was "prize-money."

† Few would be disposed to consider the salt-duty a practical proof of the enlightened nature of our rule in the East; and there is no one, we believe, except a "crack collector," who would not rejoice to see it done away with, or at least much reduced.

‡ The Rajah was expected to grant lands to the families of those, who heroically bound themselves by solemn vow to fight till death against the enemy. If the self-devoted escaped destruction, he became an outcaste, and was compelled to leave the country.

circumstances, false oaths and testimony are not only justifiable, but meritorious in a religious point of view.*

The faith professed by the Moplahs is the Shafei form of Islam. All their priests and teachers are of the same persuasion ; and such is their besotted bigotry, that they would as willingly persecute a Hanafî Moslem, as the Sunnis of most Mussulman countries would martyr a heretic or schismatic. No Sheah dare own his tenets in Malabar. We doubt whether the mighty hand of British law would avail to save from destruction any one who had the audacity to curse Omar or Usman at Calicut. They carefully cultivate the classical and religious branches of study, such as Sarf o Nahv, grammar, and syntax ; Mantik, or logic ; Hadis, the traditions of the Prophet ; and Karaat, or the chaunting of the Koran. They seldom know Persian ; but, as they begin the Arabic language almost as soon as they can speak, and often enjoy the advantage of Arab instructors, their critical knowledge of it is extensive, and their pronunciation good. The Vernacular dialect of the Moplah is the Malayalim, into which, for the benefit of the unlearned, many sacred books have been translated. The higher classes are instructed by private tutors, and appear to be unusually well educated. The priest has charge of the lower orders, and little can be said in praise of the schoolmaster or the scholar.

As regards testaments and the law of inheritance, the Moplahs have generally adhered to the Koran ; in some families, however, the succession is by nephews, as amongst the Nairs.† This custom is palpably of Pagan origin, like many of the heterogeneous practices grafted by the Mussulmans of India upon the purer faith of their forefathers. Of course they excuse it by tradition. When Cherûman Rajah, they say, became a convert to Islam, and was summoned by Allah in a vision to Mecca, he asked his wife's permission to take his only son with him. She refused. The ruler's sister then offered to send her child under his charge. The Rajah adopted the youth, and upon his return from the Holy City, he instituted the custom of *murrû-muka-tayum*, in order to commemorate the introduction of Islam into the land of the Infidel.

* This is the universal belief and practice of the more bigoted parts of the Moslem world : and so deep-rooted is the feeling, that it acquires a degree of power and influence truly formidable and difficult to deal with.

† The natives of India generally belong to the Hanafî : the Arabs are the principal followers of the Shafei sect. Both are Sunnis, or orthodox Moslems, and there is little difference between them, except in such trifling points as the eating or rejecting fish without scales, &c.

‡ Except that a Moslem father may always allot a portion of property during his lifetime to his children.

ART. IV.—*Eastern Monachism: an account of the Origin, Laws, Discipline, Sacred Writings, Mysterious Rites, Religious Ceremonies, and present circumstances, of the order of Mendicants founded by Gôtama Budha (compiled from Singhalese MSS. and other original sources of information), with comparative notices of the Usages and Institutions of the Western Ascetics, and a Review of the Monastic System; by R. Spence Hardy. London. Partridge and Oakley, Paternoster Row. 1850.*

WHEN the lark rises into the blue ether, it may sing as it soars; and whilst far away from the ken of the keenest eye, like a tiny skiff moored in an unruffled lake, it may float with motionless wing in its own undisputed dominion; but when the bird of passage addresses itself to its adventurous travel, in which hill and dale, and rolling river, in oft-repeated succession, will have to be crossed, and many a weary rood of the welkin measured with agitated pinion, a sternness of purpose and an indomitable perseverance are required for the accomplishment of the mighty task. By parity of process, there are some themes that we can treat lightly, and that are rather the play-toys of our leisure than the task-work of our more serious moments; but there are others that we must approach in a more solemn mood, as it is not possible to comprehend them in their immensity without patient and protracted research. The subject now before us partakes, in an eminent degree, of the more earnest of these characteristics. In an attempt at its elaboration, however, we have to descend rather than to rise; and the atmosphere around us resembles rather the murkiness that hovers above the morass, than the pure azure, in the midst of which the lark, we have started, would love to pour forth unseen its streams of melody.

There are many reasons why Buddhism deserves a more extended investigation than it has yet received. It is now, and has been nearly two thousand years, more widely spread than any other system. We speak numerically, and not of territory. This fact alone is strong proof that there must be within it some prehensile power that can lay hold upon man with a grasp of amazing tenacity. And yet there is nothing in its exterior form, which would lead us to infer that it possesses a potency so great. Its energy, like that of the simoom of the desert, is imperceptible, except by the effects it produces. It contains, also, the germ of the scepticism of every age; and in its apparent respect for any creed whatever, that has in it the semblance of what it regards as the truth, maintaining that

none are to be entirely rejected, though none but itself is to be entirely received, it is a perfect foreshadowing of too much of the educated mind of the present age. It ought to abate the pride of our modern sceptics, when they learn that their boasted discoveries are but a metempsychosis of primeval error. To call their system "neology" is a manifest misnomer. The wilds of Asia, in the most remote antiquity, generated thoughts that have only recently appeared in the schools of Europe. They are there regarded as being new, and as all-assimilative in their tendency; but with what truthfulness, let the times of old decide.

The archives of Buddhism are ample; and therefore it is not from the want of a pathway that its labyrinths have not been explored. Like all religions, that abstract their votaries from the cares of the world, it has a vast mass of traditionary lore; and if a collection were to be made of its legends, Nepal, Burmah, Siam, Tibet, China, Japan, and Ceylon, would each present its own voluminous *Acta Sanctorum*. The controversy as to whether its most precious remains are enshrined in Sanskrit or in Pali, has been set at rest by the admission of Mr. Brian H. Hodgson, "that the honours of Ceylonese literature and of the Pali language (as anticipated by Mr. Prinsep) are no longer disputable."

In the article on Buddhism, which appeared in our eighth number, many statements of fact were furnished, calculated to throw light on its "origin and diffusion." In the work, which heads this article, Mr. Hardy has supplied information on one important department of the subject, which, to most of our readers, will be new—information, which, we venture to say, is more full, more varied, more instructive, and more fraught with interest to the philosopher and the Christian philanthropist, than what is to be found in any other available book on Buddhism in the English, or any other, language. In a prefatory note prefixed to the present volume, the author announces that he has prepared, and will publish if he receive encouragement, a work that is intended to be a synopsis of Buddhism, as the system is now professed in the sacred Lanká. In "Eastern Monachism" we have, therefore, little insight into the *general principles* of the system; as the author confines himself almost exclusively to the affairs of the priesthood. Throughout the work, there are allusions to the analogous customs of other orders of ascetics, which will be of interest to many of its readers, but lessen its value in the estimation of the mere orientalist. In our notice of the work we shall confine ourselves to such parts of its contents as are more properly

eastern in their character; and shall dwell more particularly upon the attributes of the system that are the least known out of the pale of Buddhistical erudition. The author's information upon these subjects is derived from personal observation, during a residence of twenty years in Ceylon; from conversations with the priests; and from the perusal of Singhalese manuscripts.

The work is divided into twenty-four chapters, which we shall take in order; and we shall present as complete an analysis of their pages as our limits will permit.

I. *Gótama Budha*—The venerated sage, who has more worshippers upon earth than any other being, was born, according to the Singhalese records, at Kapilawastu, B. C. 623-4. It was at the moment of his birth he uttered the arrogant exclamation—"I am the most exalted in the universe; I am 'its chief; I am the most excellent among all the beings 'it contains; this is my last birth; hereafter there is to 'me no other state of existence." At the age of sixteen, he was married to the beautiful Yasódhará, daughter of Supra Budha, who reigned at Kóli. Sudhódana, the father of Gótama, having learnt from the soothsayers that his son would become an ascetic, and that his resolution to leave the world would be caused by four things he would witness, viz., decrepitude, sickness, death, and the demeanour of a recluse—set a guard about him, that he might be prevented from meeting with any of the signs, that were to produce consequences so important. Utterly bootless were all these precautions. First, he saw an old man wending his way with trembling steps and slow; then, a leper; afterwards, a putrid corpse; and more important than all, he met a recluse, whose modesty of deportment struck him as being worthy of universal imitation. It was on his way to a party of pleasure that he saw the last of these prohibited signs, and, whilst in the midst of its amusements, it was announced to him that Yasódhará was delivered of a son, his first-born child. On his return to the palace, the master of the revels gathered around him the most attractive courtezans; loud was the music, and rude the laugh; but the thoughts of the prince were away to the wilderness; and when the witching women saw that all they did to gain his attention was vain, their wiles became gradually less animated, and after a time they fell asleep. But that which all their wantonness was unable to effect, was produced by the appearance of the sleeping throng. One was yawning here, and another rolling there, whilst a whole group were breathing loudly, in dissonant contrast to their former strain, so that the festive

hall became to him a scene of aversion. This was all that was wanted to bring the thoughts of the prince to a practical issue. Already charmed by the gentle virtues of asceticism, and now disgusted with the pleasures of the world, he rushed at once into solitude, after a passing glance at his sleeping babe; and was enabled by the Dévas to elude the vigilance of the guard that had been placed around him by his anxious father. After a long course of arduous exercise, he became a supreme Budha, at the foot of a bó-tree, near which Budha Gaya was afterwards built. By virtue of his office, he now became supreme among all the intelligences of all worlds, and was in possession of an unlimited power to do or to know.

As this mysterious energy was the result of his own will, and came by intuition, not from the teaching of another; and as others, who were willing to pursue the same course, might attain to the same dignity, he began at once to proclaim the privileges connected with a renunciation of the enthrallment of sensuous existence; and in far less time than was required by the merchant of Mecca for the establishment of Islámism, thousands upon thousands had adopted the tenets of Gótama, and followed his example. Until the day of his death, he acted as the apostle of his own religion, wandering to Benares, Rajagaha, Wésáli, Sewet, and even Ceylon. Everywhere he gained converts to his creed. The opposition he met with was principally from the sect called Tirttakas; and, although the Brahmans are sometimes alluded to, we do not from this source derive any exalted idea of their respectability or influence. At the age of eighty years, Gótama Budha calmly expired, near Kusinára; his existence, according to his own dogma of Nirwána, passed into non-existence; and, after his body had been burnt with the honour due to his exalted rank, his relics were collected by his sorrowing disciples, among whom were many, in the class of Rahats, that were not much inferior, either in power or wisdom, to their great teacher.

II. *The Laus and Regulations of the Priesthood.*—The number of the legislative enactments attributed to Budha, partakes of the immensity that characterizes all the thoughts of the Hindu. They are said to have amounted to ninety millions, one hundred and eighty-five lacks, and thirty-six. The more important of the laws, about 220 in number, are collected together in a manual, called in Pali, Pátimokkhan, which is to be recited twice every month in an assembly of priests, at which not fewer than four must be present. At the commencement of his ministry, Gótama promulgated a more condensed code, as he was afraid that if, at the outset, he made known the sterner

requirements of the institute, many persons would be deterred thereby from seeking to release themselves from the evils of existence. The items of this code were afterwards explained, modified, and enlarged, as the circumstances arose that called for additional legislative interference. There is a class of observances, called Teles-dhutanga, known also to the Chinese, to which allusion is frequently made in the works of the Singhalese authors. The priest by whom this class is respected, is to observe the following rules:—1. To reject all garments but those of the meanest description. 2. To possess not more than three garments. 3. To eat no food but such as has been received under certain restrictions. 4. To call at all houses alike, however mean they may be, when carrying the alms-bowl. 5. To remain on one seat when eating, until the meal be finished. 6. To eat only from one vessel. 7. To cease eating the instant that certain things occur. 8. To reside in the forest. 9. To reside at the foot of a tree. 10. To reside in an open space, without the covering of a roof. 11. To reside in a cemetery. 12. To take any seat that may be provided. 13. To refrain from lying down, under any circumstances whatever.

III. *Names and Titles*.—Under this head is included the vexed question, as to whether primitive Buddhism admits of such a distinction as the epithets Clerus and Laicus would designate. Into this controversy we shall not enter. Mr. Hardy says—"I have retained the word priest to designate the *sramana* of Budha; he is a monk as to the economy of his own life (if he live according to the stricter precepts), but a priest as to the world without: *clericus regularis*." The following are the principal names given to these wearers of the yellow robe. 1. Srāwaka, from the root sru, to hear, answering to the ακουστικός of the Greeks. 2. Sramana, from srama, the performance of asceticism, answering to the ἀσκητής of the ancient church. 3. Théro, or elder, answering to the *Zaken* of the Old Testament and the πρεσβυτερος of the New. 4. Bhikkhu, from bhiksha, to beg, literally a mendicant. This was the appellation generally used by Gótama when he addressed the priests.

IV. *The Noviciate*.—The aspirant to the privileges of the priesthood must be, at least, eight years of age, before he is allowed to commence the preliminary exercises, and must have the consent of his parents. No one who is diseased, a slave, or a soldier, can be admitted as a candidate, but any one else may seek the privileges, and it was to this comprehensive arrangement that Buddhism was indebted for a great part of the success that attended it at its promulgation. The novice must be at

least twenty years of age, before he can be ordained; but it does not appear how long the noviciate is to continue, if he enters on its duties in maturer years. The *Sāmānera*, as the neophyte is called, usually begins his connexion with the monastery by becoming a pupil in the school of the priest; but when he has assumed the robe, he must comply with all the rules of the priesthood that are included in an abandonment of the world. At the time of his initiation, he has his head shaved, and bathes; and, taking a robe, he gives it to a priest, requesting that he may receive it again and be permitted to wear it. The priest then imparts to him the three-fold protective formulary, called *Tun-sarana* :—

Budhang-saranang-gach'hāmi,	I take refuge in Budha.
Dhammang-saranang-gach'hāmi,	I take refuge in the Truth.
Sanghang-saranang-gach'hāmi,	I take refuge in the Associated Priesthood.

He is also required to repeat the ten ordinances, or obligations, and declare that he will observe them :—not to take life; not to take that which has not been given; to avoid sexual intercourse, the saying of that which is not true, and the use of intoxicating drinks; not to eat any solid food after mid-day; not to attend upon dancing, singing, music, or masques; to avoid the use of perfumes or flowers; not to use a seat or couch above the prescribed elevation; and not to receive gold or silver. The principal duties that are afterwards to be attended to are set forth in a manual called *Dina Chariyā*, or the daily observances, of which Mr. Hardy gives a translation. There are several other rituals that the novice is to learn by heart. If he omits any of his duties, he is likened to “a man who daubs ‘ himself all over with the most disgusting filth, in order to render ‘ himself beautiful; he is like an ass among cattle; he is shunned by all; he is like the fire of a cemetery, where bodies are ‘ burnt, or like one blind, or an outcast.” There are five deadly sins that are especially to be avoided.—1. Matricide. 2. Patricide. 3. The murder of a *rahat*. 4. Wounding the person of a supreme Budha (his life cannot possibly be taken). 5. Causing a schism among the priesthood.

A translation is given of the history of a Brahman youth, called *Rat'hapāla*, intended to set forth the greatness of the difficulties that the novice has sometimes to encounter, before he is allowed to assume the garb of the recluse. At its conclusion, he declares to *Kórawya*, king of Kuru, the reasons that induced him to abandon the world. “Four aphorisms,” he says, “have been ‘ declared by Budha; and it was because I understood them, that ‘ I embraced the priesthood. They are :—1. The beings in this ‘ world are subject to decay; they cannot abide long. 2. They have

‘ no protection, no adequate helper. 3. They have no real possessions; all that they have they must leave. 4. They cannot arrive at perfect satisfaction or content; they are constantly the slaves of evil desire.” After illustrating each of these positions, he proceeds to say:—“ There are some men, who have much property, but on account of the false medium through which all things appear to them, it seems as if it were little; they are covetous of more, and are continually trying to add to their possessions. There are kings who subdue the whole of the four quarters, even to the borders of the sea; but they are still not content: they wish to cross the ocean, that they may find out more worlds to conquer, but they are never satisfied with what they acquire, and the craving continues until death. There is no means of satisfying the desire of the worldling. When he dies, his friends go about with disordered hair, and weep. They exclaim, he is gone, he is dead, and they then enwrap the body in cloth, and burn it upon the pyre. He cannot take with him either property or wealth; even the corpse-cloth is burnt. When about to die, neither relatives, friends, nor companions, can afford him any protection. He who dies, is accompanied only by his merit and demerit; nothing else, whatever, goes with him; he cannot take with him children, or women, or wealth, or lands. Decay is not prevented by riches, nor is old age; and life continues only for a very little time. The rich and the poor, the wise and the unwise, men of every condition, must equally encounter death; there is no one to whom its embrace will not come. The unwise man trembles at the approach of death; but the wise man is unmoved. Wisdom is therefore better than wealth; of all possessions, it is the chief: it is the principal means by which evil desire is destroyed, and purity is attained. The cleaving to sensuous objects is the cause of many dangers, and prevents the reception of *nirwána*. For these reasons I have embraced the seclusion of the priesthood.”

V. *Ordination*.—There is no word of ecclesiastical usage that properly designates the change undergone by the postulant, when he passes from the noviciate to the priesthood. It includes, in its consequences, both the profession of the regular, and the ordination of the secular priest; and yet, in itself, it is a rite of the simplest kind. The mode, in which the ceremony is conducted, appears in a work called *Kammawáchan*. A chapter of the priesthood having been called, the candidate is asked, if the requisites of the order (such as the alms-bowl, robes, &c., that have been previously prepared and deposited in the place of assembly) belong to him. After answering in the affirma-

tive, he is asked, if he is free from disease: if he is a human being, a man, and a freeman; if he is out of debt; if he is free from the king's service; if he has the consent of his parents; if he has attained the age of twenty years; and if he is provided with the priestly requisites. A few other matters are then enquired into, and the moderator then requests him to advance. The candidate, addressing the venerable assembly, says respectfully thrice, "I request *upasampadā*," admission into the order of the priesthood. The moderator certifies that he is free from the impediments which would prevent his admission into the sacred community; that he possesses the requisites, and requests "*upasampadā*;" after which he thrice calls out, "Let him who assents to this request be silent; let him who dissents from it, now declare it!" If the assembly remain silent, the moderator infers that consent is given; upon which he repeats to the candidate, the more important of the rules by which he will have to abide—relating to the food he may receive, the garments he may wear, the place in which he may reside, the medicaments he may use in case of sickness, and the crimes that involve expulsion from the priesthood. It is declared that these ordinances are worthy to be kept to the end of life, to which the candidate assents, without, however, taking any vow. From this time, he is regarded as being in possession of all the privileges of the priesthood.

In the life-time of the sages, when permission was given to a postulant to wear the garment of the recluse, Gótama simply said, "Come hither, mendicant;" and it is affirmed that the requisites of the priesthood were supernaturally provided. It is not improbable, that the ceremony of "*upasanipadā*" is an innovation upon primitive Buddhism.

There are other usages, of too interesting a character to be passed by without notice. "There is no order among the Buddhists," says Mr. Hardy, "distinct from that of the presbytery—the sangah being a congregation of elders presided over by a moderator, who is strictly *primus inter pares*. Whilst maintaining the necessity of a succession, the power is regarded as being resident in the association, and not in the individual. The idea of a succession is not lightly treated by the Buddhists, inasmuch as they consider that there can be no new *sangah* unless its members have been admitted to the order by a previous sangah of legal constitution; and they do not consider any sangah to be legally constituted, unless there has been in the same manner a succession of regular appointments, from the commencement of the order. When in any country the succession has been lost, no attempt has been made to create a

‘ spontaneous sangah. When better times have come, application has been made to some other country, for a renewal of the authority. And even when certain classes have been illegally shut out from this order, they have, in no instance that has come under my notice, regarded themselves as forming a perfect Church, until the succession was legally received. Furthermore, if all the priests in any given temple or district, though legally ordained, were to be guilty of some misdemeanor, requiring absolution, it would be out of their power to hold a legal sangah, until they had been absolved by some priest, who was free from the same impediment; and, although the absolving priest were to be guilty of some other and even greater misdemeanor, it would be no bar to his power of absolution.”

The order is not regarded as being indelible; and, as the ordinances are to be observed *durante bene placito*, a return to the world, under certain circumstances, is permitted, either for a temporary period, or until death. Inability to remain continent; impatience of restraint; a wish to enter upon worldly engagements; affection for parents or friends; or doubts as to the truth of the system propounded by Budha; are among the reasons that are regarded by Gótama as valid for the laying aside of the yellow robe. But no one is allowed to re-enter the priesthood, who has abandoned it, “without express permission had and obtained from a legal sangah.” In some countries, almost every respectable male inhabitant enters the priesthood for a temporary period.

The upasampadá succession was several times lost, during the wars of the Singhalese with their continental invaders. It was last renewed in the reign of Kirtti Sri, who, however, consented to an arrangement that was greatly opposed to orthodox Buddhism. A royal decree was issued, that ordination should be conferred only upon members of the gowi, or agricultural caste, this being the principal caste retained among the Singhalese. As Kandy was then the residence of the king, it was also forbidden to confer the privilege in any other place. These regulations produced great dissatisfaction among the inferior castes, and about the beginning of the present century, application was made by some of their number to the priests of Burmah, who admitted them into the sacred order. On their return to Ceylon, they established a new community, admitting postulants indiscriminately from all castes. In some other matters also, they profess to aim at a reformation of the unauthorized practices of the more ancient fraternity. The two communities regard each other with great bitterness and contempt.

VI. *Celibacy*.—The priest is told at his ordination, that “when the head is taken off, it is impossible that life can be retained in the body; and that in like manner, the priest, who holds sexual intercourse, is thereby incapacitated from continuing to be a son of Sákya, or a sramana.”

The rules to be observed by the priest, that he may be prevented from transgressing the moral requirements of the institute, are numerous, and, in their character, exceedingly comprehensive. As an instance of the complete abstraction, under which the more devoted of the priests are said to live, we may extract the following narrative: The venerated Chittagutta resided in the Karandu-lena, a cave in the southern province of Ceylon, upon the walls of which were painted, in a superior manner, the stories of the Budhas. The cave was visited by some priests, who greatly admired the paintings, and expressed their admiration to Chittagutta; but he replied, that he had lived there sixty years, and had never seen them, and that he should not now have known of their existence, if it had not been for their information. There was near the entrance to the cave, a large ná-tree; but he only knew that the tree was there, from the fall of the pollen and flowers. The tree itself he never saw, as he carefully observed the precept, not to look upward or to a distance. The king of Magan having heard of his sanctity, invited him to come to his palace, that he might have the privilege of worshipping him; but though he sent three messages, the priest was unwilling to leave the cave. The king, to oblige him to comply, bound up the nipple of a woman who was giving suck to her child, sealed it with the royal seal, and declared that it should not be broken until he came. When Chittagutta heard of what the king had done, out of compassion, he went to the palace. The monarch worshipped him on his arrival, and told him that a transient sight of him was not sufficient, as he wanted him to impart to him the precepts during several days. This he did, in order that he might detain the priest; and in this way, seven days passed over. At his departure, the king and his queens worshipped him, and the king carried his alms-bowl some distance; but he merely said in return, “may you prosper.” When some other priests expostulated with him for not being more respectful, and told him that he ought to have said, “May you prosper, great king; may you prosper, illustrious queens!” he replied, that he knew not to whom he was speaking; he had not even noticed that they were persons of rank.

When the world is abandoned, all the affections of relationship are to be entirely annihilated. A priest, who resided at

Koranakara, in Ceylon, had a nephew, who was a priest in the same Vihāra; but in the course of time, the nephew went to reside at Ruhuna, in the southern province of the island. After this, his parents were continually asking the older priest, if he had heard any news of their son. At last, as they were so importunate, he set out for Ruhuna, that he might enquire after the welfare of his nephew, and be able to satisfy the wishes of his parents. By this time, the nephew thought it would be well to go and see his uncle, as he had been absent from him a considerable period. The two priests met on the borders of the Mahaneli; and, after mutual explanations, the uncle remained near the same place, to perform a certain ceremony, and the nephew proceeded onward to his native village. The day after his arrival, his father went to invite him to perform the rite called *wass*, at his house, as he had heard that a stranger was come to the monastery. The priest accordingly went every day, for the space of three months, to his father's house, to say *bana*; but he was not recognised by any of his relatives. When the ceremony was concluded, he informed his parents, that he was about to depart; but they entreated him to come the next day, and they then gave him a cruse of oil, a lump of sugar, and a piece of cloth nine cubits long. After giving them his blessing, he began his journey to Ruhuna. The two priests again met on the borders of the river, when the nephew informed his uncle, that he had seen his parents; and at the same time anointed his feet with the oil, gave him the sugar to eat, and presented to him the piece of cloth. He then proceeded on his journey, and his uncle set out to return to Koranakara. From the time that the son began to perform *wass*, at his father's house, his parent went out every day in the direction of Ruhuna, to see if the priest was returning with his child; but when he saw him alone, as he concluded at once that his son was dead, he threw himself at the feet of the priest, wept, and lamented aloud. The priest saw the error into which the father had fallen, and made known to him what had taken place, convincing him of the reality of what he said, by showing him the cloth he had received. The father then went in the direction his son had gone, fell on his face and worshipped, saying that his son was without an equal, as he had visited his parents' house every day during three months, and yet never discovered himself to any of his relatives.

VII. *Poverty*.—The sramana is allowed to possess, in his own right only eight articles, called *pirikara*, which are regarded as the requisites of the priesthood. 1, 2, 3. Robes of different descriptions. 4. A girdle for the loins. 5. A *pātara*, or alms-

bowl. 6. A razor. 7. A needle. 8. A perahankada, or water-strainer. The strainer is considered to be a necessary article; as, "if any priest shall knowingly drink water containing insects, 'it is a fault that requires confession and absolution.'" As among other orders of ascetics, a distinction is made between the individual and the community; and a chapter of the priesthood can receive almost anything that the faithful choose to present, except gold and silver. The possessions of the sramanas in Ceylon are extensive, and include some of the richest domains in the island.

VIII. *Mendicancy*.—The priest is not allowed to bring within the door of his mouth any substance not given in alms, unless it be water, or some article used for the cleaning of the teeth; and "when in health, the food, that he eats, must 'be procured by his own exertions in carrying the alms-bowl 'from house to house, in the village or city near which he 'resides.'" When going to receive alms, the bowl is slung across his shoulder, and is usually covered by the outer robe. It may be made of either iron or clay, but not of any other material. The priest may not, when carrying the bowl, by any word or sign whatever, intimate his wish to receive any particular alms, unless he be sick. But this law is not unfrequently evaded. There is an ancient legend, that a certain priest, who was suffering from hunger, went to a house to receive food. The woman of the house said that she had nothing to give him; but she pretended that she would go and ask something from a neighbour, for which purpose, she left the house, and went to a little distance. The priest took the opportunity to look and see what the good woman had in her store; and in the corner, near the door, he saw a piece of sugar-cane, he also saw some sugar-candy, salted meat, rice, and ghí, in different vessels; after which he again retired to the outer court. When the woman returned, she said that she had not succeeded in obtaining any rice. The priest replied, "It is not a fortunate 'day for our order; I have seen an omen." She asked what it was, and he proceeded, "I saw a serpent, like a piece of sugar-cane; on looking for something to strike it with, I saw some 'stones like pieces of sugar-candy; the hood of this snake was 'like a piece of salted meat; its teeth were like grains of rice; 'and the poisonous saliva falling from its gums was like ghí 'in an earthen vessel." The woman, on hearing this, was unable to deny the truth of the inference; so she presented the priest with the whole of the articles he had seen. But in this manner, to speak of what is near is forbidden: it is *sámanta jappana*.

IX. *Diet*.—The requirements under this head are much less severe than might have been expected. The priest is entirely to abstain from the use of intoxicating drinks, as it is said that “they lead to indifference towards religion.” After the sun has passed the meridian, he may not partake of solid food; but, previous to that hour, he may eat whatever is presented to him, and, indeed, is absolutely forbidden to partake of any thing else, but what is put into the bowl, when going his morning’s round, unless food should have been provided for the priesthood of the Vihára in which he lives, by some other mode. The death of Gótama was occasioned by eating pork.

X. *Sleep*.—The night is divided into three watches, of four hours each. It is said that “Gótama slept during one-third of the third watch, or one hour and one-third. In the first watch he preached, or engaged in religious conversation; in the second watch he answered questions put to him by the Dévas; and in the first division of the third watch he slept, in the second, exercised meditation, and in the third, looked abroad on the world, with his divine eyes, to see what being or beings it would be proper to catch in the net of truth during the day.”

The last of the thirteen ordinances requires that the sramana, who keeps it, shall not lie down to sleep; and, during the whole of one watch of the night, he must walk about. He may not recline at full length; but may walk, or stand, or sit. All the ordinances of the dhutanga are divided into three classes, and the priest, who enters the superior class, may not lean on any place, or make his robe into a seat, or take hold of a piece of cloth fastened to a tree. He who enters the middle class, is allowed to make use of any of these assistances. He who enters the third class may make seats (in particular ways that are mentioned.) But no member of any of the three classes is permitted to lie down.

XI. *The Tonsure*.—From the commencement of his noviciate, the priest must be regularly shaved. All capillary excrescences are to be carefully removed from the body. There are fifteen evils connected with the growth of the hair, such as, that it must be ornamented, anointed, washed, perfumed, purified, unloosed, tied, combed, curled, unknotted, and freed from vermin; and when it begins to fall off, there is regret. The hair is not to be permitted to grow to a greater length than two inches; but it is the usual custom to shave every fortnight. The priests generally shave each other; but it is not forbidden to have the operation performed by a laic.

XII. *The Habit*.—The precepts given in the Pátimokkhan,

relative to dress, are numerous. The priests are permitted to have three robes, and are not allowed to retain an extra robe more than ten days. The whole three are always to be in his possession, unless danger be apprehended, in which case, he may leave one robe in the village, but not more than six days, unless specially permitted. We have a further insight into the customs of the priesthood upon this subject, in a legend of the king of Kósala. His queens having given 500 splendid robes, monuments of his affectionate munificence, to the priests, he spoke in anger to Ananda, the nephew of Gótama Budha and his own personal attendant, and enquired if the priests intended to sell them, reminding him that Budha had declared that no priest was to have more than three robes. Ananda replied, "Yes, as their own property: but the priests may receive 'whatever is presented, in order that the giver may thereby 'obtain merit." The king enquired what the priests did with their old robes; and the priests informed him, that after stitching them, they took them for loose wrappers. The king then enquired what became of the former wrappers? Ananda: "They cut away the old pieces, and taking the good pieces that are left, they make them into inner robes." The king: "What becomes of the inner robes that have been cast off?" Ananda: "They spread them upon the ground, that they may sleep on them at night." The king: "What becomes of the cloths upon which they slept previously?" Ananda: "The priests spread them in the places where they dwell, that they may walk upon them." The king: "What is done with the cloths upon which they formerly walked?" Ananda: "They make them into the rugs, upon which they wipe their feet." The king: "What becomes of their former rugs?" Ananda: "They use the shreds in preparing the clay of which their huts are built." The king's anger was appeased by these answers; and to show his satisfaction, he presented to Ananda 500 other robes of similar value, greatly praising the institutions of Budha.

XIII. *The Residence*.—There appears to be an inconsistency upon this subject in the teachings of Buddhism. Under some of its phases, it would seem to require peremptorily an abandonment of all the comforts connected with a substantial dwelling; and yet, upon other occasions, it would appear as if the Vihára were a usual and necessary part of the economy. In the Pátimokkhan, it is directed, that "the residence of the priest, if it be 'built for himself alone, shall be twelve spans, according to the 'span of Budha, in length, and seven in breadth inside. The 'site must be chosen in a place that is free from vermin, snakes, 'wild beasts, &c., that the life of the priest, or of those who

‘ resort to him, may not be in danger, and that the destruction of
 ‘ animal life may not be caused by its erection. There must be
 ‘ a pathway round it, wide enough for the passage of a cart.
 ‘ Before possession is taken, a chapter of the priests must pro-
 ‘ nounce, that it is not larger than the prescribed limits. Whe-
 ‘ ther the residence is intended for one priest or for many, this
 ‘ rule must be observed. At the time the dwelling is erected,
 ‘ the priest may direct materials to be brought, two or three
 ‘ times, from grounds not under immediate cultivation, that the
 ‘ parts requiring stability, may be rendered firm ; but this num-
 ‘ ber of times is not to be exceeded.”

The priest who keeps the eighth of the thirteen ordinances, called Aranyakango, is not allowed to reside near a village, but must remain in the forest, and never leave it, for any purpose whatever, if he belong to the superior class. The priest who keeps the ninth of the ordinances, called Rukhamúlikhanga, is to avoid all tiled houses, and live at the root of a tree (the root being defined to be the space within which the leaves fall, on a calm day, or on which the shadow falls at noon). But trees of the following kind are prohibited ; a tree at the limit of a country ; a tree in which any Déva resides, who receives offerings from the people ; a tree whence gum is taken or edible fruits are gathered ; a tree in which there are owls ; or a hollow tree ; and a tree in the midst of the ground belonging to a Vihára. The tenth of the ordinances, called Abbhókásikanga enjoins, that the priest, who keeps it, shall not live in an inhabited place, or at the root of a tree, but in an open space. The eleventh of the ordinances, called Sósánikanga, requires the priest to live in a cemetery, a place where dead bodies have been deposited, or where they have been burnt. He may not make a place like a court of ambulation, nor frame a hut ; he may not sit on a chair, or recline on a couch ; and he is forbidden to provide water, as if it were a priest’s regular dwelling. This is a very difficult ordinance, and is to be observed with much sorrowful determination. He is never to enter a house, as he lives in the midst of the smoke arising from the funeral pile and the stench of dead bodies.

The residences of the modern priests are usually mean erections, in Ceylon and Burmah ; although the monasteries in Siam and China are of a more permanent character ; but in no country do we now find the devoted recluse of the primitive Buddhists.

XIV. *Obedience.*—As there must, necessarily, be great difficulty in keeping order among masses of celibates, who have few of the common cares of the world to engage their attention,

monastic discipline has always been stern in its character. Among the Sramanas, it is forbidden to the inferior priests to be in the company of the superior, or those who are more aged, without paying them proper respect. They are not to jostle them, nor go in front of them, when seated; nor are they to sit on a higher seat, or, to talk when near them, or, when talking with them, to use action of the hands or feet; they are not to walk near them with their sandals on, or to walk about, in some part of the same court, at a higher elevation, or to walk at the same place at the same time. They are not to go before them, or press upon them, when carrying the alms-bowl. They are not to be harsh with the novices. And they are not to take upon themselves matters, with which they have no right to interfere, such as to put firewood in the place where water is warmed for bathing, or to shut the door of the bath without permission. If any priest causes divisions in the community, he will have to suffer for his crime, a whole kalpa, in one of the Narakas, (hells).

XV. *The exercise of Discipline.*—When the priests meet together, to listen to the reading of the Pátimokkhan, the position in which they are to place themselves, the order in which they are to sit, and the kind of place in which they are to assemble, are minutely prescribed. “When one section of the rule is ‘read,’ we learn from Eastern Monachism “the enquiry is ‘made three times, if all, that are present, have observed the precept; and if no answer is given, it is supposed to be in the affirmative; but if any one has broken the precept and does not confess it, he is regarded as being guilty of a wilful lie. When a priest has been guilty of any of the thirteen enumerated crimes that involve suspension and penance, and conceals the fact, upon its discovery, he is placed under restraint, as many days as he has concealed it; then for six nights he is subject to a kind of penance, and after this period, he may be restored to his position by a chapter, at which twenty priests must be present. No priest is allowed to question the utility of reading the Pátimokkhan, in the manner prescribed; and if any priest is convicted of manifesting impatience, relative to the reading of this code, he is to confess his crime and receive absolution. The matters brought before the chapter are to be deliberately investigated, and the sentence is to be determined by the majority. The modes of punishment, that are appointed, are of the mildest description, including reprimand, forfeiture, penance, suspension, and exclusion. The principal exercises of penance, appear to be, sweeping the court-yard of the Vihára, and sprinkling sand under the bó-tree, or near the Dágobah. In

‘ one legend, it is stated, that some ascetics, who were required, as penance, to go to the Ganges and take up a portion of sand which they were to bring to a certain place, had, by this means, in the course of time, made a mound of sand that was many miles in extent.” It appears from the Thibetan works on Buddhism, as illustrated by Csoma Kőrös, that priests of that country were accustomed to put under ban or interdict, any person or family who had rendered themselves liable to ecclesiastical censure, in the following manner: In a public assembly, after the facts had been investigated, an alms-bowl was turned, with its mouth downwards—it being declared, by this act, that from that time, no one was to hold communication with the individual against whom the fault had been proved. According to the text, no one was to enter his house, or to sit down there, or to take alms from him, or to offer him religious instruction. After a reconciliation had taken place, the ban was taken off, by the alms-bowl being placed in its usual position.

XVI. *Miscellaneous Regulations.*—These will not admit of abridgment, and to transcribe the whole chapter would far exceed the space we have at command. We shall, therefore, confine our attention to one or two of the more important of the rules: “ The priest is not allowed to take even so little as a blade of grass, when it is not given; and if he takes a sandal, or anything of the same value, or above that value, he ceases to be a son of Sákya, as the withered branch, that is severed from the tree, ceases to put forth the tender bud or bear fruit.

“ The priest is not allowed, knowingly, to deprive any animal, though it be even so insignificant as an ant, of life; and if he deprives any being of life, though it be no more than the causing of a miscarriage, he ceases to be a son of Sákya, as the mountain that has been severed in two, cannot again be united.

“ The priest (who is yet under the influence of the sensuous principle) is forbidden to make pretensions to the possession of the rahatship; and if any priest acts contrary to this precept, he ceases to be a son of Sákya, as the palm-tree cannot continue to grow, when deprived of the branches that form its head.”

The above rules are literally translated from the Kammawáchan. Relative to the taking of life, we have further information, from other sources. In the time of Gótama, there was a priest, who was under the influence of passion; and as he was unable to subdue it, he thought it would be better to die than to continue under restraint. In consequence, he threw himself from a precipice, near the rock Gijakúta; but it so hap-

pened, that as he came down, he fell upon a man, who had come to the forest to cut bambus, whom he killed, though he did not succeed in taking his own life. From having taken the life of another, he supposed that he had become *pārājika*, or excluded from the priesthood; but when he informed Budha of what had taken place, the sage declared that it was not so, as he had killed the man unintentionally, his intention being to take his own life, whilst the death of the woodman was an accident. A law was made, however, forbidding the priests to commit suicide. Several stories are repeated, in the Thibetan Dul-vár, of suicide or poisoning among the priests, or of causing themselves to be slain or deprived of life, out of despair, upon hearing of the various kinds of miseries or calamities of life. Budha, in consequence, forbade any one from discoursing on these miseries in such a manner as thereby to cause desperation. These circumstances will remind the classic reader of the story of Hegesias, whose gloomy descriptions of human misery were so overpowering, that they drove many persons to commit suicide, in consequence of which he received the surname of Peisi-thanatos.

In the city of Wésáli, there was a priest, who, one day, on going with the alms-bowl, sat down upon a chair, that was covered with a cloth, by which he killed a child that was underneath. About the same time, there was a priest, who received food mixed with poison into his alms-bowl, which he gave to another priest, not knowing that it was poisoned, and the priest died. Both of these priests went to Budha, and, in much sorrow, informed him of what had taken place. The sage declared, after hearing their story, that the priest, who gave the poisoned food, though it caused the death of another priest, was innocent, because he had done it unwittingly; but that the priest, who sat upon the chair, though it caused only the death of a child, was excluded from the priesthood, as he had not taken the proper precaution to look under the cloth, and had sat down without being invited by the householder.

XVII. *The Order of Nuns*.—An order of female recluses was instituted by Gótama: but the severe restrictions under which they were placed, are proofs of the low opinion he entertained of that division of the human species, which Christianity raises into the “better sex.” “That, which is named woman,” said Budha, with unwonted severity, “is sin,” *i. e.*, “she is not ‘vicious, but vice.’” Other insults did he heap upon woman, which we shall not repeat. The female recluses carried the alms-bowl from door to door, in the same manner as the priests, and are represented as being present, upon some occasions, at

the chapters of the priests. They formed a chapter of their own, where females were admitted to the order. The convents were, in some instances, contiguous to the Vihára; but the intercourse between members of the two orders was guarded by many restrictions. To violate a priestess involved expulsion from the priesthood, without the possibility of restoration.

In Ceylon, there are at present no female recluses. They exist in Burmah, but in far less numbers than the priests. They forsake the sisterhood, when they can secure husbands. The profession is looked upon as only a more respectable mode of begging. They are not numerous in Siam. In Arrakan they are equal in number to the priests. Their dress is white, and their heads are shaven. The Chinese nuns are said to be of coarse manners and unprepossessing appearance.

XVIII. *The Sacred Books.*—The Budhas, the sacred books, and the associated priesthood, are regarded as the three most precious gems of the universe. The second of these inestimable treasures is called in Pali, Dharma, which Mr. Hardy translates the Truth, under the supposition that the Law, its usual rendering, “gives an idea, contrary to the entire genius of Buddhism.” In common conversation, it is called the Bana, or wood. The different portions of the Dharma, when collected together, were divided into two principal classes, called Suttáni and Abhidharmáni. These two classes are again divided into three collections, called respectively:—1. Winaya, or discipline. 2. Sútra, or discourses. 3. Abhidharma, or pre-eminent truths. The three collections are called in Pali Pitakat-tayan, from pitakan, a chest, or basket, and táyo, three. A glossary and a commentary on the whole of the Pitakas were written by Budha-gósha, about the year A. D. 420. It is not unfrequently said, but not with much precision, that the Winaya was addressed to the priest, the Sútra division to the laity, and the Abhidharma to the Dévas and Brahmas of the celestial worlds. The Winaya Pitaka is divided into five books (the names of which are given), and contains 42,250 gáthás, or granthas, whilst the commentary contains 27,000. The Sútra Pitaka, divided into seven sections, contains 142,250, and the commentary 254,250. The Abhidharma Pitaka contains 96,250, and the commentary 30,000. Thus, according to the native authorities, the discourses of Budha contain 84,000 khandas, 737,000 gáthás (including the commentaries), and 29,368,000 separate letters. The information upon these subjects is taken from Turnour’s *Mahawansa*; Turnour’s *Pali Buddhistical Annals*, the *Journal of the Bengal Asiatic Society*, July, 1837; Gogerly’s *Essay on Buddhism*, *Journal of the Ceylon*

Branch of the Royal Asiatic Society, Vol. I., and from the Singhalese Sadharmá-larkaré.

The system that bears the name of Gótama was not committed to writing during the life-time of the sage. It is said that his discourses were preserved in the memory of his followers, during the space of 450 years, after which they were reduced to writing in the island of Ceylon. For the establishment of the text of the Pitakas, three several convocations were held. The first was at Rajagaha, sixty-one days after the death of Gótama; the second was at Wésáli, B. C. 443; and the third was at Pátali-putra, B. C. 308. Of each of these convocations, the history is given, taken from Singhalese authorities, "The whole of the text of the Pitakas was rehearsed, every syllable being repeated with the utmost precision, and an authentic version established, though not committed to writing. As the whole of the persons, who composed these assemblies, were rahats, and had, therefore, attained to a state in which it was not possible for them to err on any matter connected with religion, all that they declared was the truth; every doctrine was correctly delivered, and, in the repetition of the words of Budha, and of the other interlocutors, the *ipsissima verba* were faithfully declared. The rahats did not possess inspiration, if we consider this power to mean a supernatural assistance imparted *ab extra*; but they had, within themselves, the possession of a power, by which all objective truths could be presented to their intellectual vision. They therefore partook of what, in other systems, would be regarded as divinity." At the second and third convocations, the text was repeated without any alteration, except that an account of the previous convocations was added. It was further preserved, in a similar manner, *i. e., memoriter*, from the reign of Asóka, to that of Wattagamani, who was king of Ceylon, from B. C. 104 to B. C. 76. It was then, according to the Mahawansa, Chapter XXX., first committed to writing:—"The profoundly wise priests had, therefore, orally perpetuated the text of the Pitakattayan and the Atthakathá commentary. At this period, these priests, foreseeing the perdition of the people (from the perversions of the true doctrines) assembled; and, in order that religion might endure for ages, recorded the same in books." It is said that when Mahendra, son of the monarch Asóka, introduced the religion of Budha into Ceylon, he carried thither, in his memory, the whole of the commentaries, and translated them into Singhalese. By Budha-gósha, about A. D. 420, they were again translated from Singhalese into Pali; and it is this version that is now in existence, the original Pali version

and the Singhalese version having alike perished. It is said in the Mahawansa, Chapter XXXVII., that "all the Th'éros ' and Acháriyas held this compilation in the same estimation as ' the original text." Until recently, this was also acknowledged by the priests of Ceylon; but when the manifest errors, with which the commentaries abound, were brought to their notice, they retreated from this position, and now assert, that it is only the express words of Budha, which they receive as undoubted truth.

The high state of cultivation to which the Pali, the Vernacular language of Magadha in the time of Gótama, was carried, may be inferred from the fact, that a list of works in the possession of the Singhalese, formed by our author during his residence in Ceylon, includes thirty-five works on Pali Grammar, some of them being of considerable extent. The oldest of the grammars referred to in these works is by Kachchayana; but the original is not now extant in Ceylon. It contains the well-known stanza:—"There is a language which is the ' root (of all languages;) men and Brahmas, at the commencement of the kalpa, who never before heard or uttered a human ' accent, and even the supreme Budhas spoke it—it is Mágadhi." The Singhalese suppose that it is also the language of the Déva and Brahma lókas. They have a story, in proof of its authority, similar to that which is related of the Egyptian Psammetichus.

XIX. *Modes of Worship, Ceremonies, and Festivals.*—The Buddhists of the present age are invariably image-worshippers; but it is not known, at what period they adopted this custom. The Singhalese have a legend, that, in the lifetime of Gótama, an image of the sage was made, by order of the King Kósala; and the Chinese have a similar story; but it is rejected by the more intelligent of the priests. The limits of the Vihára are to be defined by a chapter, the form to be used on the occasion, appearing in the Khammawáchan. It is not a consecration, but a segregation, or appointment of boundaries. Attached to one of the Viháras, in Kandy, near the burial-place of the kings, there is an area, which was regarded as a sanctuary under the native Government. In the court-yard of nearly every temple in Ceylon, there is a bó-tree, supposed to have sprung from the tree under which Gótama attained the Budhaship. The authority to worship this tree is derived from the following occurrence:—"At ' the time when the usual residence of Gótama was near the city ' of Sewet, the people brought flowers and perfumes, to present to ' him as offerings; but as he was absent; they threw them down ' near the wall of the Vihára, and went away. When Anápidu and

‘ the other lay devotees saw what had occurred, they were grieved, and wished that some permanent object of worship were appointed, at which they might present their offerings, during the absence of the sage. As the same disappointment occurred several times, they made known their wishes to Ananda, who informed Budha on his return. In consequence of this intimation, Budha said to Ananda :—‘ The objects that are proper to worship, are of three kinds, *seríríka*, *uddésíka*, and *paribhógíka*. In the last division, is the tree under which I became Budha. Therefore, send to obtain a branch of that tree, and set it on the court of this Vihára. He who worships it, will receive the same reward as if he worshipped me in person.’ When a place had been prepared by the king for its reception, Mugalan went through the air, to the spot in the forest, where the *bó*-tree stood, and brought away a fruit that had begun to germinate, which he delivered to Ananda, from whom it passed to the king, and from the king to Anápidu, who received it in a golden vessel. No sooner was it placed in the spot it was intended to occupy in the court, than it at once began to grow; and as the people looked on in wonder, it became a tree, large as a tree of the forest, being 50 cubits high, with five branches extending in the five directions, each 50 cubits in length. The people presented to it many costly offerings, and built a wall around it of the seven gems.” By this legend, the arborolatriy of the Budhists is carried back to the origin of their system. The vastness of the ruins now seen at Budha Gaya, is evidence that the original *bó*-tree must have been visited by great numbers, and have been regarded with peculiar veneration.

The *dágobas*, under which relics of the Budhas, or of their more celebrated disciples, have been placed, are found in all countries, where there are any traces of Buddhism. The most stupendous are those at Anurádhapura, in Ceylon. The Abhayagiri *dágoba* is now only 230 feet high, but at its erection it towered to the elevation of 450 feet, being about 50 feet less than the highest of the pyramids. The Jaitawanaráma, completed A. D. 310, was originally 315 feet high, though now reduced to 269 feet. It has been calculated that the contents of this erection are 456,071 cubic yards, and that a brick wall, 12 feet high, 2 feet broad, and 97 miles long, might be built with the materials that yet remain. All the mounds in this neighbourhood have been built of brick, and covered over with a preparation of lime, cocoanut-water, and the juice of the *paragaha*. This composition is of so pure a white, and can be so highly polished, that when perfect, the structures are

said to have resembled "a crystal dome or a half-melted iceberg." The circum-ambulation of the *dágoba* is regarded as a work of great merit, and any mark of disrespect to it, is a grave crime. After the cremation of Gotáma's body, his remains were collected, and worshipped by his followers with tokens of the most profound respect. The most celebrated relic now in existence is the *Daladá*, or left canine tooth of the sage. The sanctuary of this treasure is a small upper chamber in the *Vihára*, attached to the palace of the former kings of Kandy, where it is deposited in a costly shrine, composed of six cases, the outermost of which, upwards of 5 feet high, is formed of silver, on the model of a *dágoba*.

Another form of relic-worship is seen in the respect paid to the impressions of Gotáma's foot, called *Srí srí-pada*. One of these impressions was left by him on the summit of the mountain, called Adam's Peak by Europeans—7,420 feet above the level of the sea. The soles of his feet are represented as being divided into 100 compartments, each of which contained within it some emblem or figure.

If Gotáma has passed away from existence, it appears singular that he should be worshipped at all, as he can now render no manner of aid whatever to his most devoted followers. Is he not unconscious? How, then, can he bless? The argument is illustrated by the Budhists from a great number of comparisons: but the following extracts from a long conversation between the priest *Nágaséna* and *Milinda*, king of *Ságal*, will suffice for our present purpose. *Nágaséna*: "Does the earth say (when its vegetable productions appear), Let such and such trees grow upon my surface?" *Milinda*: "No." *Nágaséna*: "Then how is it that flowers, and buds, and shrubs, and trees, and creepers, passing from one to the other, are produced?" *Milinda*: "The earth, though itself unconscious, is the cause of their production." *Nágaséna*. "Even so, Budha, though now unconscious, is nevertheless the source of comfort, to those who seek his protection....." *Nágaséna*: "Did you never hear of the *Yaká Nandaka*, who struck the head of the priest *Serizut* with his hand, and the earth clove, and he went down to hell? Was this cleaving of the earth brought about by the will and appointment of *Serizut*?" *Milinda*: "No; this could not be: the world 'and all the beings, that inhabit it, might pass away; the sun 'and moon might fall to the earth, and *Maha Méru* be destroyed; but *Serizut* could not wish the endurance of sorrow by any 'being whatever; the rising of anger would be at once over-come by the virtue he possessed as a *rahat*; he could not be in-

'censed even against his murderer. It was by the power of his 'own demerit that Nandaka was sent to hell." Nāgasēna: "It was even so. But if this demerit, though itself unconscious, could cause the yaká to be taken to hell, so may 'merit, though also unconscious, cause those, who possess 'it, to be taken to a Déva-lóka, and receive happiness." Thus, as the worshipping of Budha is a merit, and all merit is followed by an adequate reward naturally from its own innate power, though there be no conscious entity to appoint it; so will the man, who worships Budha, receive a reward for his act, though Budha is unconscious of its performance.

The principal festivals of the Budhists are at the reading of the "bana," during the three months of the rainy reason, when the priests are permitted by their founder to live in a fixed habitation. This period is called *wass*. The place of reading is a temporary erection, usually seen near a Vihára. In the centre, there is an elevation for the convenience of the priests, around which the people sit upon the ground. These erections present, upon some occasions, an imposing appearance; and the crowds that assemble, all in the gayest attire, behave with much propriety; but they can derive no moral benefit from the ceremony, as it is conducted in a language they do not understand. The platform is occupied by several priests at the same time, one of whom reads a portion of the sacred books, in a kind of recitative, between singing and reading. Upon some of the festivals, one priest reads from the original Pali, and another interprets in the Vernacular Singhalese; but this method is not very frequently adopted. Whenever the name of Budha is repeated by the officiating priest, the people call out simultaneously, "Sádhu!" which gives them a participation in the proceedings, and prevents them from going to sleep.

The *bana* is usually read on the days called *poho*, when there is a change of the moon. Upon these days, it is not proper for the upásakas, or lay disciples, to do any manner of work; they are not "to trade, or calculate the profits of trade." Their food is to be prepared on the preceding day; and they are to spend their leisure moments in reflecting on "the impermanency, sorrow, and unreality connected with all things."

There is a ceremony called Páritta, or Pirit, which consists in reading certain extracts from the "bana," intended as a protection from the malice of the yakás. These discourses have been translated by that distinguished Pali scholar, the Rev. D. J. Gogerly, and appeared in the *Ceylon Friend*, April, 1839. The ceremony continues during seven days—a preparatory ceremony being held on the evening of the first day. From the com-

mencement of the service on the morning of the second day, until its conclusion on the evening of the seventh day, the reading platform is never to be vacated, day or night. Not fewer than twelve, and in general twenty-four, priests are in attendance, two of whom are constantly reading. When the courses are relieved, one priest continues to read, whilst the other resigns his seat to his successor, so that the sound of the "bana" never ceases. All the priests engaged in the ceremony are collected, three times in each day, at sunrise, mid-day, and at sunset, when they chaunt in chorus the three principal portions of the Pirit.

In some parts of Ceylon, the priests are partially supplanted by the upāsakas, who go about from house to house, after the manner of the Scripture-readers in Europe, and read works on religion that are written in the Vernacular Singhalese. The same custom prevails in other countries, where this system is professed, and is attended with important results.

XX. *Meditation*.—In this and the following chapter, we are introduced to some of the extravagancies of thought and action, that are peculiar to the inhabitants of India; that other nations have striven in vain to imitate; and that present to the moralist a field of almost limitless investigation. There are said to be five principal modes of meditation:—1. Maitú. 2. Mudita. 3. Kâaruna. 4. Asubha. The account given of the last will be the most suited to our limits; and, from its description, an idea may be formed of the character of the rest.

"The principal meaning of the word 'asubha' is inauspicious—that which is the opposite of good fortune; and so, that which produces dissatisfaction, aversion, and disgust. In this exercise, the priest must reflect that the body is composed of thirty-two impurities; that as the worm is bred in the dunghill, so it is conceived in the womb; that it is the receptacle of filth, like a privy; that disgusting secretions are continually proceeding from its nine apertures; and that, like the drain into which all kinds of refuse are thrown, it sends forth an offensive smell. This is asubha bhāwanā.

"The body exists only for a moment; it is no sooner born than it is destroyed; it is like the flash of the lightning as it passes through the air; like the foam; like a grain of salt thrown into water, or fire among dry straw, or a wave of the sea, or a flame trembling in the wind, or the dew upon the grass. He, who exercises meditation, must reflect upon these comparisons, and learn that thus impermanent is the body.

"By a continued repetition of birth and death, the sentient being is subject to constant suffering; he is thus, like a worm

‘ in a nest of ants ; like a lizard in the hollow of a bambu, that is burning at both ends ; like a living carcase, bereft of hands and feet, and thrown upon the sand ; and like an infant that, because it cannot be brought forth, is cut from the womb piecemeal. He, who exercises this mode of meditation, must think of these comparisons, and of others that are similar, and remember that their application is universal. These are the signs connected with *dukkha*, sorrow, or suffering.

“ The body is unreal, even as the mirage that appears in the sunshine, or a painted picture, or a mere machine, or food seen in a dream, or lightning dancing in the sky, or the course of an arrow shot from a bow. He, who exercises meditation, must think on these comparisons, that, in like manner, the body is unreal ‘ anata.’

“ These three reflections on the impermanency, suffering, and unreality of the body, are as the gates leading to the city of *nirvāna*.

“ The ascetic, who would practise this mode of meditation, must apply to some one who is able to instruct him, who must take him to a cemetery, and point out to him the offensive parts of a dead body ; but, if he hear that there is a body in the forest, he must not go there, as he may be in danger of the wild beasts that are attracted to the same spot ; nor must he go to any place that is very public, as in such a spot his mind would be distracted by the various scenes he would witness, and he would meet with women. A man must not meditate on the body of a woman, nor a woman on the body of a man. When about to leave the Vihāra, he must inform the superior priest of his intention, as in the place where the body is deposited there will be noises from yakás and wild beasts, and he may become so much afraid as to be sick. The superior priest will see that his alms-bowl and other requisites are taken care of during his absence. And there is another reason why he should give notice of this intention. The cemetery is a place resorted to by robbers ; and, when they are chased, they might throw down their booty near the place where the priest was meditating ; and when the people come in pursuit, and see the articles near him, they might accuse him of the theft ; thus he might be exposed to much trouble. But if the superior priest could affirm that he went to meditate, he would be freed from suspicion at once. He must go to the place of meditation with joy ; as the king goes to the hall where he is to be anointed, or the Brahman to the yāga sacrifice, or a poor man to the place where there is hidden treasure. He may take with him a staff,

‘ to drive away dogs and wild beasts. In the exercise, he must
 ‘ turn his eyes and ears inward, and must not allow them to
 ‘ wander after any thing that is without, save that he must re-
 ‘ member the direction in which he came. In approaching the
 ‘ body, he must not come from the leeward, or he may be over-
 ‘ powered by the smell, and his mind will become confused. But
 ‘ if there be in the other direction any rock, fence, water, or other
 ‘ hindrance, he may approach the body from the leeward, pro-
 ‘ vided he cover his nostrils with the corner of his robe. In
 ‘ fixing his eyes on the body, he must look athwart the course of
 ‘ the wind; he must not stand near the head or feet, but opposite
 ‘ the abdomen; not too near, or he may be afraid; nor too far
 ‘ off, or the offensive properties will not rightly appear. He
 ‘ must meditate on the colour of the body; its sex, age, and
 ‘ different members, joints, and properties—that this is the head,
 ‘ this the abdomen, and that these are the feet; and he must
 ‘ pass in order to the different parts of the body, from the foot
 ‘ to the head. Thus, in relation to the hair of the head, the
 ‘ following reflections must be made:—‘ It is different to all
 ‘ other parts of the body, even to the hair that grows in other
 ‘ places; it is in every respect impure; when not regularly clean-
 ‘ ed, it becomes offensive; and, when thrown into the fire, it sends
 ‘ forth a disagreeable smell.’ Fixing his eyes on the body, he
 ‘ must think a hundred and a thousand times on its offensiveness;
 ‘ that it is like a bag filled with wind, a mass of impurity; and
 ‘ that none of its excretions can be taken in the hand. And at
 ‘ times he must shut his eyes, and think inwardly and intensely
 ‘ upon the same subjects. All dead bodies are alike; the body
 ‘ of the king cannot be distinguished from that of the outcaste,
 ‘ nor the body of the outcaste from that of the king.”

The course of discipline, upon which the sramana is invited to enter, is most painful; but its results are a commensurate advantage. “Whoever considers these things,” says Gótama, “will be convinced that in the body there is nothing but decay and misery; and therefore he will cast off all affection for it, and turn all his desires to *nirwána*, when these things do not exist.”

XXI. Ascetic Rites and Supernatural Powers.—It is believed by the Budhists, that it is possible, by the performance of certain ceremonies, and the observance of a prescribed course of moral action, to arrive at the possession of supernatural powers. The circumstances, in which the recluse of India is placed, are eminently fitted to prepare him for an unwonted extravagance of pretension; and as we glance at the record of his deeds, we

seem to be perusing the history of some aerial being, or of the inhabitant of some other world, rather than that of one, who is of the earth, and mortal.

One of the principal of these rites is called *Kasina*. Its moral intention appears to be, by fixing the mind intensely upon some serious object, to free it from agitation, and bring it to the imperturbable calm, that is regarded as the highest state to which any intelligence whatever can aspire. Its mode of action is thus illustrated. When a bullock, unaccustomed to the yoke, is fastened to a waggon, it runs hither and thither, in any direction, whether there be a road or not. The husbandman, therefore, takes a grown-up calf from its mother, and fastens it to a pillar; and, though at first it attempts to get away and is restless, it is not able; it is made to eat and sleep near the pillar, until its wildness is overcome; and in this manner it is, by degrees, rendered docile. So also, the mind of the priest, who does not exercise the various ordinances of meditation, wanders after that which he sees, and is never at rest; but when he fastens his mind to the prescribed objects by the cord of wisdom, it is restrained, and is no longer attracted by sensuous appearance.

There are ten descriptions of *Kasina*, or ten prescribed objects, to which the mind may direct itself for the production of tranquillity. 1. *Pathawi*, earth. 2. *Apo*, water. 3. *Tégo*, fire. 4. *Váyo*, wind. 5. *Níla*, blue. 6. *Píta*, golden. 7. *Lóhita*, blood-red. 8. *Odáta*, white. 9. *Ahóka*, white. 10. *Akása*, space. Of each of these *Kasinas*, we have a full description. The priest, who exercises the first, must make a frame of four sticks, which may be set up in such a way as to be easily removable to another place, or it may be fixed in the ground. Upon the top, a piece of skin, or cloth, or matting, must be extended, upon which earth must be spread, free from grass, roots, sand, and pebbles; and it must be well tempered, and made very smooth. After being gradually kneaded and worked, until it is of the proper consistency, it must be formed into a circle one span and four inches in diameter. If the frame be fixed in the ground, it must be narrow at the bottom and broad at the top, like the flower of the lotus. The circle of earth is to be to him as a sign upon which he is to fix his attention, like a man looking at himself in a mirror. In some circumstances, the circular threshing-floor in a field may be used as the sign; and, if the priest has been accustomed to exercise *Kasina* in former births, the sign may be dispensed with altogether. When a sign is used, it is necessary, that it have a limit. When the frame has been properly prepared, the priest must take

water that falls from a rock, and therewith render the circular limit of earth perfectly smooth and even, like the head of a drum. Then, having bathed, he must sweep the place where the frame is erected, and place a seat, without any irregularities on its surface, one span and four inches high at the distance of two cubits and one span from the frame. Remaining upon this seat, he must look at the circle, and exercise meditation. If the seat be further distant than the prescribed space, he will not be able to see the circle properly, and, if nearer, its imperfections will be too apparent. If it be higher, he will have to bend his neck to see this circle; if lower, his knees will be pained. Thus seated, he must reflect on the evils connected with a repetition of existence, and on the manner in which it is to be overcome. By this method he will arrive at the possession of *nimitta*, or interior illumination, which will prepare him for the exercise of *dhyāna*, and initiate him into the deeper mysteries of the system.

The acquisition of supernatural energy is the result of these performances: and it is varied in its character and degree by the particular method pursued by the ascetic. "By the practice of *pathawi-kasina*, the priest will receive the power to multiply himself many times over; to pass through the air or walk on the water; and to cause an earth to be made, on which he can walk, stand, sit, or lie. By *āpo-kasina*, he can cause the earth to float, create rain, rivers, and seas; shake the earth and the rocks and the dwellers thereon; and cause water to proceed from all parts of the body. By *tējo-kasina*, he can cause smoke to come from all parts of the body, and fire to come down from the sky like rain; by the glory, which comes from his person, he can overcome that which comes from the person of another; he can dispel darkness, collect cotton or fuel, or other combustibles, and cause them to burn at will; cause a light, which will give the power to see in any place as with divine eyes; and, when at the point of death, he can cause his body to be spontaneously burnt. By *vāyo-kasina* he can move as swiftly as the wind; cause a wind to rise whenever he wishes; and can cause any substance to move from one place to another, without the intervention of a second person. By the other *kasinas*, respectively, the priest, who practises them in a proper manner, can cause figures to appear of different colours; change any substance whatever into gold, or cause it to be of a blood-red colour, or to shine so with a bright light; change that which is evil into that which is good; cause things to appear that are lost or hidden; see into the midst of rocks and the earth, and penetrate into

‘ them ; pass through walls and solid substances, and drive
‘ away evil desire.”

There is another power, called *puti-udwega*, which enables its possessor to rise into the air, and pass through it to any distance ; and yet another, called *sacha-kiriza*, which acts as a powerful charm. By the aid of the last-mentioned energy, the courtesan, Bindumati, was enabled to cause the waters of the Ganges to flow back towards their source.

XXII. *Nirwána: its Paths and Tuition*.—By nirwána, some persons understand annihilation ; others, a celestial tranquillity ; but by our author, it is called, “ the cessation of existence.” The passages from native authors, which he has translated, presenting the arguments through which he was led to form this conclusion, are of deep interest, but would require a dissertation, devoted to this subject alone, to make them understood by those who are strangers to Buddhistical ontology. According to this system, if Mr. Hardy’s conclusions be correct, “ all sentient beings are called upon to regard the cessation of
‘ existence as the only means, by which they can obtain a release
‘ from the evils of existence. This can only be accomplished by
‘ cutting off the moral cause of its continuance, viz., the cleaving to existing objects. This sensuous adherence may be got rid of by obtaining freedom from the efficient cause of its continuance, which is *karma*, or the united power of *kusala*, merit, *akusala*, demerit, and *avyakratya*, that which is neither one nor the other. In order that this may be obtained, there must be an entrance into one of the paths leading to nirwána.” In the sequence of existences propounded by Gótama, the two causes we have named, are not coeval, but consecutive, as in a chain composed of many links. The entire chain, one link naturally and necessarily producing the sequent link, is as follows:—ignorance ; merit and demerit ; the conscious faculty ; the sensitive power ; the perceptive powers ; the reasoning powers ; the body ; the six organs of sense ; contact, or the action of the organs ; sensation ; the desire of enjoyment ; attachment ; existence ; birth ; decay ; sorrow in all its forms ; and death. (See Gogerly’s Essay on Buddhism, Journal of the Ceylon Branch of the Royal Asiatic Society, i. 15). Thus, the process is rather like the undulations of a wave, one producing the other, and flowing into it, than the independent links of a chain.

The first of the four paths leading to nirwána is called *sowán*. After it has been entered, there can be only seven more births between that period and the attainment of nirwána, which may be in any world but the four *narakas*. The second is called *sakraḍāgàmi*, because he, who enters it, will

receive one more birth. He may enter this path in the world of men, and afterwards be born in a Déva-lóka ; or he may enter it in a Déva-lóka, and afterwards be born in the world of men. The third, *anàgami*, is so called, because he, who enters it, will not again be born in a sensuous world. He may, by the apparitional birth, enter a Brahma-lóka, and from that world attain nirwána. The remaining path, *arya*, that of the rahat, is so called, because he, who enters it, has overcome, or destroyed, as an enemy, all cleaving to sensuous objects. The rahat, at his death, invariably attains nirwána. When the fruit-tree is cut down, the latest fruit that is in it, which has not yet appeared, but which would appear in due time if the tree were permitted to grow, is destroyed. In like manner, by an entrance into the fourth path, the principle is destroyed that would otherwise have remained, and brought forth the fruit of successive existence.

Nirwána is said to be "the destruction of all the elements of existence." It is the end of sangsára, or successive existences—that which, in other systems, would be called transmigration, but of transmigration in the strict sense of the terms, Budhsim knows nothing. It is an arriving at the opposite shore of existence—its completion. In answer to a question put to him by Milinda, Nágaséna said, "When the most meritorious Budha has attained nirwána, then there is no repetition of birth ; we cannot say that he is here, or that he is there. When a fire is put out, or a lamp is extinguished, can it be said of the heat or the light, that it is here, or that it is there ? Even so, our Bhagawat has attained nirwána."

XXIII. *The Modern Priesthood*.—As the priests procure their food by taking round the alms-bowl, they are as regularly seen every morning in the street of the villages and towns, where Buddhism is professed, as the postman or coster-monger is at the door of the dwellers in Britain. They usually walk along the road, at a measured pace, apparently unconscious of the scenes, that are passing around. They have no covering for their shaven heads, however fierce may be the sunbeams, and are generally bare-footed. They carry a fan in the right hand, with which they cover the face, when in the presence of any object it is improper for them to look upon. The alms-bowl is slung from the neck, and, except when held out for the reception of the alms that are presented, it is covered by the robe. The priest is easily distinguished from all other persons by his bare head and yellow garment.

The priests of Ceylon do not refuse to hold intercourse with Europeans. Our author was frequently visited by them

at his own house, especially by one old man, who had travelled through Bengal, Burmah and Siam, and prided himself upon being able to make Calomel much better than the European doctors, as his preparation did not cause the falling out of the teeth, soreness of the mouth, or salivation. He learnt the secret from an ancient sage, whom he met with, under circumstances, of much mystery, in one of the forests of India. Mr. Hardy informs us that, when travelling through unfrequented parts of Ceylon, he was accustomed to take up his abode at the priest's *pansal*, and was seldom refused a night's lodging, or a temporary shelter during the heat of the day. The priest would bring out the alms-bowl, when they saw that he was hungry, and, stirring about the contents with the bare hand, exhibit them before him, that he might be tempted to partake of them; or they would bring tobacco, or some other luxury, to express their satisfaction at his visit. All that he had with him, was a wonder to them, from the mechanism of his watch to the material of his hat. The paper, upon which the Scriptures or Tracts he gave them was printed, was supposed to be the leaf of some English tree.

The priests of Budha manifest little hostility to the other religions that are professed around them. They cannot, consistently with the tenets they profess to venerate, be persecutors. At the commencement of the Wesleyan Mission, the priest of a certain village requested the use of the school-houses in which to read "bana," and could scarcely be brought to understand the motives, upon which it was refused.

There is a school attached to each of the *pansals*, and in all Budhistical countries, the ability to read is general among the more respectable members of the male population. There is a regular course through which the student has to pass, before his education is regarded as complete; but the teachings of the sramana, though his appliances are vast, are not calculated either to expand the intellect or purify the heart. The attendance of the children must be a great relief to the monotony of the priest's life; they tell him the news of the day, are a link between his seclusion and the world without, and assist him in such little offices, as lighting his fire, bringing water from the well, running to the jungle to find some herb to make his potage more savoury, &c.

The interests of literature among the yellow-robed clergy appear to be at a low mark. No new books are written; no additions are made to the *pansal* library. The study of Pali is almost entirely neglected; and many of the priests are unable

to read at all. There is a general inertness as to the present, and a tone of despondency, when referring to the future.

"In no part of the island that I have visited," says the author of *Eastern Monachism*, "do the priests, as a body, appear to be respected by the people; though there are individual exceptions, in which a priest is popular, either from his learning, his skill in medicine, the sweetness of his voice, or his attention to the duties of his profession. I feel unwilling to make any positive statement as to their conduct, as it was generally described to me by interested persons. It may be inferred, in some measure, from their position as constrained celibates, in a country where the people pay little regard to the most sacred bonds. But when I have heard them spoken against, it has been rather on account of their rapacity than their licentiousness."

The permission to take off the robe, and marry for a limited period is a strange custom, though not without a parallel among the monks of Christendom. (See Pascal's *Provincial Letters*, *letter vi.*) It has a tendency to preserve the official character of the priesthood, but lays open the system itself to severe animadversion. In many places, the people stand in awe of the priests, as they suppose that they have the power to inflict various calamities upon the subjects of their wrath. This fear is not, however, of universal prevalence. In 1839, some females went with brooms in their hands to the *pansal* at Raddalowa, near Negombo, and requested the priest to leave the place immediately, threatening, in case of his refusal, to use the brooms upon his back. The quarrel arose from an attempt of the priest to overcome the virtue of a young woman, who had brought some cakes as an offering to Budha. The indignation of the broom bearers triumphed; and the priest was obliged to leave the village.

At the conclusion of this chapter, we have a rapid sketch of some of the principal features of the system, more especially in reference to its practical results.

The titles of the two remaining chapters, entitled "The voice of the past," and "The prospects of the future," are an index to the matter they contain. We have a glance at the history of Monachism in all ages, with an account of the agreement or otherwise, that is presented between the principal elements of other systems, and the "bana" of Gótama Budha. There is an ancient prophecy, that, after the lapse of five thousand years from the period of their establishment, "all knowledge of the doctrine of the Budhas will have entirely disappeared from the earth;" and "*Eastern Monachism*" appropriately closes with

a translation of the legend, in which this singular announcement is contained.

Having thus furnished our readers with an analysis of the leading contents of "Eastern Monachism," our principal task is ended. The work itself we most earnestly recommend to all our readers, who are interested in the welfare of the hundreds of millions, who acknowledge in some form or other the sovereign sway of Budha. It is a work of great research—abounding with original information—and, altogether, one of the most valuable contributions of our day to the cause of oriental religious literature. The title, "Oriental Monachism," is, perhaps, against it. It is apt to suggest to the minds of general readers, the case of the oriental churches; of which they may suppose they have already heard enough. "Budhism," or "the Buddhist priesthood," would, probably, attract more attention—more especially at a time when the interest of the religious world is so greatly excited towards Hinduism, Budhism, and other forms of oriental faith. But our own readers will now learn what the real objects and characteristics of the work are; and they ought to lose no time in possessing themselves of so rich a treasure. One effect of an increased demand for the present work would be, that the able and learned author would, thereby, be encouraged to risk the publication of his other work on the system of Budhism, now ready for the press. The non-publication of such a work, by so competent an author, we should regard as a prodigious loss at once to oriental literature and to the cause of Christian philanthropy.

ART. V.—1. *Friend of India*, November 13, 1851.

2. *Madras Athenæum*, 1851.

SOME little controversy took place, a few months ago, between the *Madras Athenæum* and the *Friend of India*, respecting the dependent position occupied by the minor Presidential Governments of British India, and the effects of that dependence. The former journal asserted, that the three Governments of the North West Provinces, Madras and Bombay, were in subordination to that of Bengal; and that, as a consequence, the last two, at least, were crippled and impeded in their efforts at improvement. The latter paper, on the other hand, in the number which we have specified at the head of this article, denied that there was any such dependence at all on the Government of Bengal; and maintained that the power of control, vested in the Supreme Government of India, was “seldom, or never” exercised, and was no real cause of inaction in the rulers of the minor Presidencies. The question is one of no inconsiderable importance to the good government of those extensive portions of our Indian empire, which are placed under the minor Presidencies of Madras and Bombay; and we propose to state, in a few pages, our reasons for considering our Serampore contemporary to be in error respecting it, both in his facts and in his opinions.

We will first notice his assertion, that the Government of Bengal has no power in the affairs of the sister Presidencies—“has no more to do with the Government of Madras than it has ‘with the Government of Ceylon.’” This is true in the letter; and yet the *Athenæum* is quite correct in ascribing to “the ‘Deputy-Governor of Bengal, or his Secretary, a veto on the ‘propositions of Sir H. Pottinger.’” The Charter Act of 1833 (Clause 39) constituted a Governor-General and Council for the Government of British India, and gave to that body (Clause 65) absolute power “in all cases whatsoever,” over the presidential Governments. By the same Act, (Clause 56) the Governor-General for the time being is also Governor of Bengal; and a Council for Bengal is provided: but, under the powers conferred on the Court of Directors by Clause 57, that Council has long been discontinued. It is also a part of the same enactment that the Governor-General, when he sees fit, may appoint a Deputy-Governor of Bengal; and also, that, whenever he deems it expedient that he should visit any part of India without his Council, the Governor-General in Council shall have power to appoint one of the Councillors to be President of the Council,

with the full powers of the Governor-General in Council; and to confer also on the Governor-General alone all the powers given by the Act to the Governor-General in Council, except that of legislation; thus making, in fact, two separate and independent supreme Governments.

Now it is well known that the successive Governors-General of India, for many years past, and emphatically the present holder of that office, have uniformly found themselves compelled, by the requirements of the state, to abandon alike the Government-house at Calcutta, and the general control of the internal affairs of their extensive charge; and to confine their labours, for the most part, to the external relations of the empire, and their residence to the regions of the North West. The present head of the Government in particular, may be said, during nearly the whole time of his administration, to have abdicated the functions of Governor-General, as regards the internal concerns of the empire, and to have subsided into the Governor of the pet province of the Punjaub; which (it is considered) can be most effectively administered from Simlah. The Council of India, sitting at Calcutta, being thus deprived of the presence of its proper head, his place at the Board was supplied by Sir John Littler; and the same gentleman held the appointment of Deputy-Governor of Bengal. Now it is this officer, thus invested with a double office, to whose fiat were submitted all applications and propositions from the Governments of Madras and Bombay, which needed the confirmation of the Government of India; and it is no better than a play on words to deny that the Deputy-Governor of Bengal exercises that power.

And not only is it thus literally true that the sister Presidencies are placed in subordination to Bengal in their most vital and most important interests, but the same statement is true in a more extended and a still more pernicious sense. For all the members of the Council are generally selected from the Bengal service, as well as all the Secretaries and their assistants. It is natural to suppose, therefore, that all their Indian knowledge and experience, and all their sympathies, are restricted to the Bengal Presidency, including its North Western parts: and that they know nothing whatever of the internal concerns of the other two Presidencies, of their peculiar interests, of their resources, or of the means necessary to develop them. And, knowing nothing of them, they care nothing for them. Whatever desire they feel for the advancement of India, is absorbed by those parts of it, with which they have a personal acquaintance: and there is none to spare for distant and unknown provinces. Applications and propositions from them often appear to be regarded

as impertinent and obtrusive. They are hardly deemed entitled to even a share of their own surplus revenue for public improvements; and, such is the power of feeling and habit to warp reason and the sense of right, that it is thought consonant alike with justice and with good policy to draw off the resources of the minor Presidencies (both possessing vast capabilities of improvement still undeveloped) and to apply them to fostering the resources of the North West Provinces—and, especially, of the Punjaub.

In all this, there is nothing which might not have been anticipated, and nothing to indicate that the gentlemen, placed in the position we have described, are worse than the average of their kind. The fault lies less with them than with the system, which would produce similar effects in any country and among any race of men. This tendency is universally acknowledged; and every where, therefore, each province and each municipality aims to counteract it, by obtaining a share in the general Government. The Magyar noble and the Milanese citizen are equally impatient under the rule of an Austrian cabinet; and, to come nearer home, not only have Ireland and Scotland their proportion of representatives in the British Parliament, but even counties and cities claim their share of power: and, most certainly, neither Manchester nor London was content to be legislated for by the member for old Sarum or Gattton.

A similar remedy was intended in the case now under our notice; for it was a part of the plan of the framers of the present Charter, that one of the three ordinary members of the Council of India should be always from Madras, and a second always from Bombay. Had that idea been carried into effect, there would be a security that due regard should be paid to the interests of the smaller Presidencies: but, in practice, it was never adhered to. No member of the Bombay service has ever sat in the Council; and General Morrison was the only instance of a Councillor from Madras. With that single exception, the whole body, President, Council, and Secretariat, have been solely and exclusively from Bengal.

The next proposition in the *Friend* is, that the power of control is “seldom, or never exercised;” and that, “generally speaking, the whole of the internal management of the administration, within the sum included in the annual establishments, is left entirely in the hands of the local authorities.” This statement we must emphatically deny, as erroneous in matter of fact. We are not aware what is intended by the term “annual establishments;” it seems to imply that the official establishments are revised every year, and that, at such yearly

revisions, changes, deemed expedient, may be introduced without difficulty. But this is not the case. There is no such periodical and ordinary revision. Salaries and appointments, once sanctioned, must remain unaltered, till specially brought under the notice of the Government of India, using that term in the sense above explained.

But, to come to the principal part of the proposition, it is totally an error to say that the distribution of the sum of the sanctioned establishments is at the disposal of the local Governments. So far is this from being the case, that no alteration of salaries, no revision of official establishments, which would give more pay to one officer and less to another, can be made without the previous concurrence of the "President-in-Council." It is not difficult to judge how such a rule will work in practice. No establishments are perfect, or incapable of improvement; and, even if they were, circumstances alter and render change expedient. It may often be desirable to double two appointments into one, in order to obtain one good servant in the place of two inefficient or useless ones; but this is now prevented. Again an active and intelligent officer is often promoted to an office, while young, as the best available, who is yet devoid of the valuable qualification of experience; and his services would be fully repaid by only a portion of the sanctioned salary. But this cannot be done; and the young man, receiving the full salary, contracts extravagant habits; and, as his family and his necessary expenses increase without augmentation of his means, he falls into debt, becomes discontented and, probably, careless in his duties, and, perhaps, loses his situation. Another man has served long at the head of an office, and possesses a thorough acquaintance with its working, its past history, and its records; and it would be well worth the while, both of the Government and of the office, to retain him there by an increase of his pay; but this is against rule: and the man either remains discontented and grumbling, or obtains promotion in a sphere of duty altogether new, in which his peculiar qualifications are lost. Now, if it were allowable to make temporary alterations of salary to suit the varying circumstances of offices and establishments, these and other evils and inconveniences might be prevented, and a stimulus might be given to all officers.

This, however, is cut off by the present system. The difficulties and delays in the way of obtaining any alteration of establishment are such, that the heads of offices, for the most part, put up with experienced inconveniences, whether temporary or permanent, rather than seek so laborious and troublesome a remedy. Formerly the rule was evaded by nominating an

officer to one appointment, and still retaining him in the duties of another, thus irregularly adapting his emoluments to his deserts. This evasion, of which all that can be said in its favour is, that it was better than the rule, has been put an end to—and properly so; and at present there is almost a complete stop to all improvements in establishments, and an absolute stop to all temporary changes to suit temporary circumstances.

Again the delays in the applications to Bengal are very great; and this cause aids in preventing proposals of beneficial change. Instances have been known, in which such papers received no notice for nearly two years: and, when a reply was again solicited, the answer was a request that copies of the former papers might be sent, as the originals had been lost. As an instance of delay, we may quote the account given by Mr. Forbes, the Madras Post Office Commissioner, of the attempt to establish a cart post between Madras and Bangalore. A tender was made by a European officer, peculiarly well qualified for the undertaking, to carry the mails, either in carts or on horseback, at first to Bangalore, and ultimately to Hurrhur, on the road to Bombay; the terms were approved by the Madras authorities; and the proposal was referred for the final decision of the Government of India. But week after week, and month after month passed without a word of reply; and, after waiting more than six months, Mr. Hagger turned his attention to other lines of business, and proceeded to Australia. Some time after, the tardy assent of the Government of India to his proposals was received:—but it was then too late.

Nor is delay the only evil, or the greatest. There have been cases of proposed modification of establishments, by reduction in one quarter in order to strengthen another, wherein the reductions have been sanctioned and the additions refused, thus leaving the establishment in a worse condition than before. Such a proceeding has, in our eyes, the appearance of a breach of faith; and it can be explained only by the fact that the controlling authority has no common interest or common feeling with the establishment concerned, and little or no care for its efficiency. But however it may be accounted for, the effect is, that evils are permitted to continue, and the public interests suffer; and thus, as in other ways in India, great care is taken to guard against individual or exceptional evils, while those, which are general or universal in operation, escape notice, and continue unmolested, because they are habitual and chronic.

Again, many of the reasons for changes recommended by the local Government depend on circumstances differing in kind from any within the knowledge of the central Government, and

arising out of a totally different social state. In such cases, the President-in-Council is necessarily incapable of exercising a rational judgment: and he must either blindly adopt the opinions of the proposing Government, or blindly refuse concurrence. Indeed, in the press of numberless petty questions constantly calling for the attention of an Indian Government, it is absolutely impossible that all those, coming from a distant and almost unknown part of the empire, should obtain much of the time of the ostensible Governor; and, in point of fact, such questions are frequently decided by the views, which a subordinate in the Secretariat (an uncovenanted assistant, probably) may happen to take of them. It can never be wise to require an officer to decide questions, respecting which he is wholly dependent for the necessary information on the subordinate making the proposal. It is far better to leave to such subordinate himself the power of deciding, subject to responsibility for the abuse of the power. Such a course, in the cases to which we are now referring, would not only increase the efficiency and vigour of the subordinate Government, but it would also relieve the Government of India from some part of that mass of detail, which is admitted to be too heavy a burden for it.

We have written at greater length than we intended, on the subject of control in the matter of establishments. The present discussion arose out of the alleged ill-effects of such subjection in the case of public improvements, that is, of expenditure on works of public utility, calculated to advance the prosperity of the empire. It is in this aspect that the subject is of the most importance: and our remaining remarks will, for the most part, have reference to it; and, as the controversy originated respecting Madras, so we shall mainly confine our remarks to that Presidency.

The rule is, that every project for a public work, involving an outlay exceeding 10,000 Rupees, must receive the special sanction of the Government of India; and, here again we join issue with the *Friend of India*, and assert that this rule in its operation greatly impedes the extension of public improvements in the Madras Presidency. Looking at the case in an *à priori* point of view, we think that any unprejudiced and uninterested person would at once see that such must be its effect. Human nature being what it is, it could hardly be otherwise, than that, a certain amount being allowed for public works throughout the empire (and such is the case practically, though not formally), a tribunal, composed of men, all belonging to one

division of it, but vested with power finally to determine the works to be undertaken in all its parts, should give the preference to those of that province, with which they are themselves best acquainted, and for which they are most interested; that they should over-estimate the importance of the works proposed in that portion of the empire; and should allow it more than its fair share of the general fund. And such is actually found to be the case. Backward as public improvements are in every part of British India, unwisely scanty as are the funds devoted to those objects throughout the empire; yet, as we shall show presently, there is far more neglect in Madras, and the amount allowed for improving the public communications there is much smaller, than in the metropolitan Presidency. And this is not ascribable to any indifference to improvement, or want of zeal, in the public servants. The engineers are not less able and zealous: the collectors, with whom rests the advancement of local interests, are not less anxious to promote the prosperity of the provinces entrusted to their care, than in the other Presidencies: but all efforts are paralyzed by the power of veto vested in the Bengal Government.

In this country of official mystery, it is not to be expected that many individual instances of refusal should be unofficially known. We have knowledge of some, however; and we will here quote a very characteristic one, which has recently occurred. Colonel Arthur Cotton, that able and zealous engineer officer, was very anxious that the noble means of inland water communication, afforded by the Godavery river, should no longer be neglected; and, having satisfied himself by local enquiries, that there was reasonable ground for believing that the river might be navigated by steam for nearly 400 miles from the sea, and into the very heart of the valley of Berar, the finest cotton country in India, he applied to the Madras Government for a small grant of money to enable him, personally, to explore the river in a small steamer, which he had himself constructed for the service of the Godavery Annicut, and to clear away slight impediments. The Madras Government solicited the sanction of the Indian Government to devote a sum not exceeding 10,000 Rupees to that very important object: but this application was refused by the President-in-Council at Calcutta, on the ground that he did not see what advantage would be gained by the project. Let it be remembered, that the object was to open an inland navigation, 400 miles in length; and thus, on the one hand, to effect a communication between a vast cot-

ton field and the Manchester manufacturers ; and, on the other, to give to the grain producing districts in the delta of the Godavery access to the vast market for food, which would be created by the extended culture of cotton in Berar. Let it be borne in mind, that the Bombay Government, with the sanction of the Court of Directors, have projected a railway into this same country, at the cost of probably 200 lakhs of Rupees, or Twenty millions sterling, for the very purpose of providing an exit for its cotton ; and also, that the Honorable Court of Directors have professed their willingness, in reply to an application from a company formed to navigate the Indian rivers, to make a large money grant (the sum asked is not less than £ 100,000) for the purpose of opening this river to steam navigation. And with these facts before him, any candid man will be able to form a judgment, as to the conduct of the Bengal Board in this matter. He will have no difficulty in judging, whether the men, who refused a thousand pounds for the preliminary steps of an undertaking of such magnificent promise, are those to whom the interests of a country, such as the Madras Presidency, with Twenty-two millions of inhabitants,* and an area nearly three times as large as England and Wales, can be safely entrusted ; and whether, while this power is continued to a body so constituted, the incubus, which presses down the spirit of improvement at that Presidency, is likely to be removed.

But, even if we could give a complete list of all the meritorious projects stopped by the Calcutta Council, such a catalogue would by no means measure the extent of the evil ; for one refusal prevents a score of applications. It must necessarily be mortifying to a body, holding the position of the Governor and Council of Fort St. George, to have their recommendations in such a matter rejected. A project of improvement has received careful consideration from the local and controlling authorities, and the Government themselves have adopted it, after that searching scrutiny, which past refusals have rendered doubly cautious—a scrutiny, which eagerly seeks out for every weak point, and seizes on every appearance of defective information, as a plea for rejecting the project, or at least for postponing it pending further enquiry, and so putting off the evil day of submitting it for the sanction of

* The Census, lately taken with unusual care, shows this to be the amount of the population of the Government districts only.

the Supreme power. Still some projects force their way even through this trying ordeal: and the Government unwillingly yield to the conviction, that they are valuable and ought to be undertaken. They represent their sentiments to the Board at Calcutta, and receive a chilling reply in a few lines, to the effect that the President-in-Council does not see the advantage of the plan, or that the financial position of the empire makes it necessary to postpone it.

Such a reply would be very galling to any body of public officers, but, especially to one, that is styled a Government, and is nominally at the head of a country, one-third larger than the whole of the united Kingdom. And the natural effect is, that the Madras authorities take the utmost pains to avoid such mortifications, by sending up as few applications as possible for grants out of their own surplus revenue; and rather submit to see the resources, which ought to be devoted to the improvement of that part of the empire, drawn off to enrich more favoured regions. And this feeling extends downwards to all authorities. The Revenue Board are reluctant to bring projects of improvement before the Government; and the collectors and civil engineers are backward to bring them before the Board, from a knowledge of the disfavour, with which they will be received, and of the many chances of refusal. The zealous and active are impatient and indignant to see the neglect of noble facilities for adding vastly to the revenue of the state and to the wealth and comfort of the people by works of irrigation, or, for removing the burden, that presses down enterprise and industry, by the improvement of the wretched and disgraceful intercommunications of the country. But their knowledge and feelings, derived from personal observation of, and contact with, the advantages to be obtained, or the evils to be removed, cannot be communicated to people seated quietly at their desks in a Presidency office:—and the evil continues unremoved, and not even protested against.

But the *Friend* maintains that some power of improvement is still left to the local Governments, and quotes the North Western Provinces as a proof of the statement. We admit the fact: and we fully believe also, that the writer is correct in asserting that the alleged want of power is often made a convenient cloak to cover the inaction of an indolent and indifferent Governor. But, believing this, we insist that it constitutes a strong additional reason for abolishing the restriction on the free agency of the local rulers. There are men, to whom

action is delight, and who, in positions of power and influence, find no greater enjoyment than that of toiling laboriously for the advancement of the people placed under them. But men of such a noble nature are not the many : and it is to be feared that, in Indian Governments at least, where the climate is depressing and where the spur of downward responsibility is wanting, they will ever be a minority. But, if this is true—if the generality of Governors are less likely to writhe and fret under restrictions on their powers of action, and to labour to do their utmost in spite of such restraints, than to succumb to them, and secretly rejoice in such a plea for their own natural indolence and inaction—surely it becomes the more important to deprive them of so convenient an excuse, to invest them with power commensurate with their ostensible responsibilities, and to set them before the world, either adequately to discharge the high trust committed to them, or to bear themselves the whole odium of failure. We are far from maintaining that the whole of the inactivity of the Madras Government is directly owing to the operation of the rule we are considering. We are aware that public works, even within the powers assigned to the local Government, are neglected or discouraged, and that improvements of other kinds, respecting which a far wider range has been permitted, are similarly stagnant. But it is our firm belief that, in these particulars also, inaction is greatly owing, indirectly, to a dependent position : and that, under the stimulus of direct responsibility for their own action or inaction, and habituated to prompt decision and action, few Governors would be found to do so little.

The example of the North Western Provinces is quoted to prove that the existing veto on expenditure, possessed by the general Government, does not necessarily paralyze the efforts of the subordinate Governments at improvements ; but, to our mind, this is an exception which proves the rule. The evil is, not the existence of the rule restricting expenditure, but its being put in force ; where a subordinate Governor knows that he enjoys so large a portion of the favour and the confidence of the controlling power, that his recommendations will be cordially and indulgently received, the restriction is inoperative. Now, just such is the position of the Government of the North Western Provinces. For all the purposes in question, those provinces are a part of the Presidency of Fort William ; the members of the Council of India and the Se-

cretaries have served indifferently in both divisions, both in Bengal Proper and in the Upper Provinces; in general, perhaps, they have served longer in the latter, and feel more interest in its advancement;—their recollections of the climate being more agreeable, and the country being regarded as newer and more susceptible of improvement.

In all these respects, therefore, the North Western Provinces are not only differently circumstanced from Madras and Bombay, but they are even more favourably situated than Bengal itself: their interests are, at least, as well represented in the Council; and there is a stronger feeling in favour of advancing their improvement. These differences appear to us to constitute the strongest negative proof of the ill-effects, which we have ascribed to the existing restrictions, as respects the two subject Presidencies. Those Presidencies are unrepresented in the Council, and their interests are disregarded there; the North Western Provinces are efficiently represented, and their improvement is zealously promoted. It seems difficult to avoid seeing cause and effect in each case.

As to the efficiency of the Agra Government, we are quite ready to assent to all that the *Friend* advances on that subject; and we willingly admit, that the energy and activity, which it displays, may legitimately be admitted to give it a higher place in the confidence of the supreme Governors than it would otherwise merit. But the question occurs, why, if that Government is so efficient, others are less so? The Governor of a minor Presidency cannot be hampered by his Council, as he is vested with paramount power over it. It must surely result then from a faulty selection, that those Governors are less efficient; and why that faulty selection? Is it, because their present emoluments are too valuable to be given to the most deserving man? Or, is it that the Council is relied on as a guide, or at the worst as a scape-goat? If either supposition is in any degree true, the remedy is not difficult to discover. Let those Governments be reformed on the model of that of Agra. Let the Councils be abolished: and let the salary of the head of the Government be cut down to that of a Lieutenant-Governor. And then it may be hoped that, the responsibilities of the office being increased and the emoluments reduced, the fittest man will be selected. One condition, however, is essential to the efficient working of this plan, without which, it would be a worse failure than the present:—when the post of Governor or Lieutenant-Governor is given to men of Indian experience, it

must be, not as a reward for past services, but as a call to active duties, and on proof of present vigour for their effective discharge.

Before leaving this part of the subject, we will only add one remark, with reference to the power of control possessed by the Government of India; viz., that its operation has always been to stop improvement, never to advance it. Numberless instances have occurred, in which the controlling power has stepped in to delay or prevent the undertaking of great and useful works at the minor Presidencies; but, we believe none can be produced, in which it has appeared as the advocate of such improvements—in which it has urged an inactive Governor to incur expenditure, with the view of increasing the revenue or of advancing the public wealth or convenience. Indeed, with respect to works of this nature, one general feeling seems to pervade all the Indian Governments. In the abstract, it is admitted, that the investment of capital by the state in improving the means of transit, or in increasing the fertility of the land, is wise and politic; but, practically, a latent idea appears to prevail, that every expenditure on such objects is an evil and a waste of money. There appears, in cases of this kind, a fear, or backwardness, to apply in practice principles acknowledged to be sound; and hence it has ever been deemed the great object of the power of control simply to diminish expenditure; as if all money spent, whether invested in public works or dissipated in a campaign, was equally wasted and equally unproductive. Nor can even the Home Government be acquitted of similar inconsistency; for while many of their dispatches breathe a spirit of large-minded liberality and enlightenment, others enjoin the most rigid economy and avoidance of expense; and it seems to have been thought, that the latter expressed the more prevailing sentiments of the Honorable Court.

We shall next notice the remark, which occurs at the conclusion of the paper to which we are now replying; viz., that the money, expended on public works in Madras, during twelve years, was seventy-seven lakhs; while, in Bengal, it was only forty-nine lakhs. The figures are taken from a statement published by Colonel Sykes, in the Journal of the London Statistical Society for March 1851: but there is an error in the quotation; the sums named were expended in nine years, not in twelve.

We append the statement at length.* At first sight it might be thought fully to justify the inference drawn from it by the *Friend of India*, and to show that, in the matter of public

* *Statement shewing the amount expended in India, on account of public works in each of the following years, extracted from the Journal of the London Statistical Society, for March, 1851.*

BENGAL.										NORTH-WEST PROVINCES.																	
Year.	Roads and Bridges.		Embankments.		Canals, &c.		Total.	Roads.		Bridges.		Canals.		Tanks, Wells & Embankments.		Total.											
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.		Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.												
1837-38	1,49,374	1	8	1,15,812	11	7	29,738	2	10	2,94,920	0	1	1,67,243	5	11	53,151	11	1,48,075	6	1	11,541	0	4	3,80,011	8	3	
1838-39	1,39,292	11	4	1,29,759	0	6	70,119	6	3	3,39,111	2	0	1,145,083	9	7	78,148	3	5	2,84,215	10	8	11,158	0	2	15,18,605	7	4
1839-40	1,96,792	7	6	1,40,915	11	6	29,705	15	5	3,67,854	2	5	1,40,489	15	7	50,070	14	0	1,88,816	13	1	6,196	11	8	3,95,124	6	4
1840-41	2,56,096	2	9	1,45,626	12	1	35,449	12	3	4,37,172	11	1	4,21,029	2	6	40,147	0	5	3,00,859	0	6	5,605	14	8	7,73,641	1	9
1841-42	8,16,162	15	3	1,90,589	0	8	20,108	4	6	10,35,860	4	5	2,92,671	10	8	2,677	13	3	3,88,755	8	2	19,047	8	7	7,24,252	8	9
1842-43	3,39,400	5	5	2,34,506	0	7	96,020	7	5	5,93,926	13	8	3,38,635	4	10	24,922	0	7	97,500	1	5	7,48,028	10	2	8		
1843-44	3,02,674	0	6	1,92,826	8	11	53,105	10	6	5,48,106	3	8	2,10,817	14	2	12,673	2	5	2,85,730	7	2	0	0	0	5,08,731	7	8
1844-45	4,32,894	4	3	1,71,387	8	8	41,490	12	11	6,50,872	9	10	2,18,139	2	10	72,574	9	1	2,87,413	3	4	3,774	6	5	6,11,901	4	8
1845-46	4,46,984	9	8	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Total	46,984	9	8	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Average of 9 years	5,243,079	4	3	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Total	46,984	9	8	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Average of 9 years	5,243,079	4	3	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9

MADRAS.										BOMBAY.																	
Year.	Tanks, Warehouses & other works connected with irrigation.		Roads, Bridges, Ghauts, &c.		Total.	Roads.		Bridges.		Tanks, Wells, Canals, &c. for the purposes of irrigation.		Total.		Grand Total.													
	Rs.	A. P.	Rs.	A. P.		Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.		Rs.	A. P.											
1837-38	5,38,692	12	2	1,17,516	0	44	6,49,348	12	6	33,19,489	4	7	7,224	1	8	47,699	1	10	38,410	7	5	4,12,732	15	6	17,85,913	4	44
1838-39	5,94,608	8	54	4,00,665	14	6	9,97,334	6	11	21,876	8	7	21,767	7	3	41,335	7	8	23,860	15	7	3,83,840	7	3	32,38,891	7	51
1839-40	5,14,818	0	64	3,01,558	15	84	8,16,377	0	3	2,73,062	13	11	32,064	12	0	66,907	8	24	770	6	3	9,35,812	9	1	19,75,668	2	1
1840-41	6,25,013	3	10	4,19,412	6	3	10,44,925	10	1	3,03,354	4	4	70,421	4	8	39,474	2	15	610	11	6	4,28,860	6	26	94,099	13	4
1841-42	5,60,987	15	5	2,69,855	2	10	8,39,793	2	3	2,52,353	4	10	85,883	10	0	40,135	8	130	155	5	6	4,06,525	12	8	90,084	431	12
1842-43	5,30,364	7	11	4,56,582	8	7	9,87,378	0	2	2,38,095	1	7	92,377	11	3	32,701	6	10	14,118	7	8	2,90,531	11	4	26,35,789	3	3
1843-44	5,96,016	6	8	4,54,284	9	2	7,541,311	1	10	73,692	13	0	17,170	10	4	19,963	4	15	625	9	11	4,04,104	5	8	90,92,243	3	2
1844-45	4,99,687	3	2	1,46,084	13	6	5,55,722	10	8	4,19,350	6	10	6,040	7	1	36,142	11	53	056	15	11	4,95,164	9	9	24,92,161	3	11
1845-46	6,21,174	8	0	4,76,753	0	0	10,97,927	8	0	3,79,295	5	4	25,557	14	2	30,775	15	11	41,457	14	10	4,77,087	2	3	90,25,741	8	7
Total	46,984	9	8	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Average of 9 years	5,243,079	4	3	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Total	46,984	9	8	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Average of 9 years	5,243,079	4	3	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9

MADRAS.										BOMBAY.																	
Year.	Tanks, Warehouses & other works connected with irrigation.		Roads, Bridges, Ghauts, &c.		Total.	Roads.		Bridges.		Tanks, Wells, Canals, &c. for the purposes of irrigation.		Total.		Grand Total.													
	Rs.	A. P.	Rs.	A. P.		Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.		Rs.	A. P.											
1837-38	5,38,692	12	2	1,17,516	0	44	6,49,348	12	6	33,19,489	4	7	7,224	1	8	47,699	1	10	38,410	7	5	4,12,732	15	6	17,85,913	4	44
1838-39	5,94,608	8	54	4,00,665	14	6	9,97,334	6	11	21,876	8	7	21,767	7	3	41,335	7	8	23,860	15	7	3,83,840	7	3	32,38,891	7	51
1839-40	5,14,818	0	64	3,01,558	15	84	8,16,377	0	3	2,73,062	13	11	32,064	12	0	66,907	8	24	770	6	3	9,35,812	9	1	19,75,668	2	1
1840-41	6,25,013	3	10	4,19,412	6	3	10,44,925	10	1	3,03,354	4	4	70,421	4	8	39,474	2	15	610	11	6	4,28,860	6	26	94,099	13	4
1841-42	5,60,987	15	5	2,69,855	2	10	8,39,793	2	3	2,52,353	4	10	85,883	10	0	40,135	8	130	155	5	6	4,06,525	12	8	90,084	431	12
1842-43	5,30,364	7	11	4,56,582	8	7	9,87,378	0	2	2,38,095	1	7	92,377	11	3	32,701	6	10	14,118	7	8	2,90,531	11	4	26,35,789	3	3
1843-44	5,96,016	6	8	4,54,284	9	2	7,541,311	1	10	73,692	13	0	17,170	10	4	19,963	4	15	625	9	11	4,04,104	5	8	90,92,243	3	2
1844-45	4,99,687	3	2	1,46,084	13	6	5,55,722	10	8	4,19,350	6	10	6,040	7	1	36,142	11	53	056	15	11	4,95,164	9	9	24,92,161	3	11
1845-46	6,21,174	8	0	4,76,753	0	0	10,97,927	8	0	3,79,295	5	4	25,557	14	2	30,775	15	11	41,457	14	10	4,77,087	2	3	90,25,741	8	7
Total	46,984	9	8	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Average of 9 years	5,243,079	4	3	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Total	46,984	9	8	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9
Average of 9 years	5,243,079	4	3	1,85,866	13	4	68,513	14	7	6,51,355	5	7	3,54,534	4	3	9,411	1	7	3,52,770	10	8	1,23,653	8	3	7,98,571	8	9

MADRAS.										BOMBAY.																	
Year.	Tanks, Warehouses & other works connected with irrigation.		Roads, Bridges, Ghauts, &c.		Total.	Roads.		Bridges.		Tanks, Wells, Canals, &c. for the purposes of irrigation.		Total.		Grand Total.													
	Rs.	A. P.	Rs.	A. P.		Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.		Rs.	A. P.											
1837-38	5,38,692	12	2	1,17,516	0	44	6,49,348	12	6	33,19,489	4	7	7,224	1	8	47,699	1	10	38,410	7	5	4,12,732	15	6	17,85,913	4	44
1838-39	5,94,608	8	54	4,00,665	14	6	9,97,334	6	11	21,876	8	7	21,767	7	3	41,335	7	8	23,860	15	7	3,83,840	7	3	32,38,891	7	51
1839-40	5,14,818	0	64	3,01,558	15	84	8,16,377	0	3	2,73,062	13	11	32,064	12	0	66,907	8	24	770	6	3	9,35,812	9	1	19,75,668	2	1
1840-41	6,25,013	3	10	4,19,412	6	3	10,44,925	10	1	3,03,354	4	4	70,421	4	8	39,474	2	15	610	11	6	4,28,860	6	26	94,099	13	4
1841-42	5,60,987	15	5	2,69,855	2	10	8,39,793	2	3	2,52,353	4	10	85,883	10	0	40,135	8	130	155	5	6	4,06,525	12	8	90,084	431	12
1842-43	5,30,364	7	11	4,56,582	8	7	9,87,378	0	2	2,38,095	1	7	92,377	11	3	32,701	6	10	14,118	7	8	2,90,531	11	4	26,35,789	3	3
1843-44	5,96,016	6	8	4,54,284	9	2	7,541,311	1	10	73,692	13	0	17,170	10	4	19,963	4	15	625	9	11	4,04,104	5	8	90,92,243	3	2
1844-45	4,99,687	3	2	1,46,084	13	6	5,55,722	10	8	4,19,350	6	10	6,040	7	1	36,142	11	53	056	15	11	4,95,164	9	9	24,92,161	3	11
1845-46	6,21,174	8	0	4,76,753	0	0	10,97,927	8	0	3,79,295	5	4	25,557	14	2	30,775	15	11	41,457	14	10	4,77,087	2	3</			

works at least, the Madras Presidency does not suffer from its dependent position. But in order to a right understanding of the subject, the figures require some correction. The statement includes some large items at Madras, which ought not to enter into it ; and excludes some in the North-West Provinces and in Bengal, which properly belong to it. And we may here premise, that in our notice of this table, as well as in our remarks on other statistical matters, we shall speak principally of the North-West Provinces, because the laudable and enlightened practice of that Government, in making public through the printing press a very large proportion of their able and valuable official documents, places within our reach means of information, which we do not possess in the case of the other Presidencies.

We say then, that the statement includes works in the Madras Presidency, which do not belong to it ; and the works, we allude to, are those for irrigation. These works are not public works in the sense intended, viz., such as benefit the public without any direct advantage to their author ; they are undertaken by the Government strictly and exclusively as works of profit, and with a most careful consideration of the probable return in the shape of revenue. This is true even of new works ; but the repairs of existing works, which probably constitute five-sixths of the whole expenditure for irrigation, are still less properly entered in this table.

A very large proportion of the land revenue of all the eastern and northern parts of the Madras Presidency is derived from irrigated land ; and the value of irrigation, as a source of wealth, may be estimated from the fact that it is computed to increase fivefold the produce and the value of the land watered. And, through a happy peculiarity of the Indian peninsula, the waters of both the south-west and the north-east monsoons are extensively turned to united account for this object. For all the large rivers of southern India, the Godavery, the Kistna, the Tumbúddra, the Cavery, the Palar, the Pennar, the Vellaar, and others, take their rise near the Western Ghauts, under the influence of the south-west monsoon, and flow eastward, across nearly the whole breadth of the peninsula. And the water, which they convey to the more easterly parts of the country in

In the table, as given in the statistical journal, there is an error in the sum total of the expenditure in the North-West Provinces for 1844-45. The component items given make a total of 5,81,901-5-8, not 6,11,901-4-8, and the yearly average would thus be 7,14,506-3-8, instead of 7,17,839-8-11. We print the table as we find it, however, because we are ignorant whether the mistake is in the total, or in any of the component items.

June and July, furnishes irrigation for one crop; while the supplies, which the same and other smaller streams obtain in October and November from the north-east monsoon, irrigate the second crop. The channels and reservoirs, by means of which these copious wealth-bringing streams are conducted to the fields or stored for use, were constructed in the course of ages by the various ruling powers of the country, small and great; and their aggregate value at the present time, in the Carnatic only (being about half of the Madras Presidency), has been estimated at 825 lakhs of Rupees, or Eight and a quarter millions sterling.* And this appears to us to be far too low an estimate, being based on the assumption, that the whole of the works now return an annual revenue to the amount of twenty per cent. of their original cost.

These works, being continually subjected to the action of water in motion, must necessarily be liable to wear; and, as they consist in great part of earthen embankments, or rough stone revetments, the wear and tear must be considerable. The powers, who constructed the works, were well aware of their need of constant repair: and, very generally, the necessary provision was made by a separate or special assessment, levied on the land watered, but distinct from the land revenue. This special assessment was called "tank fees;" it was levied at so much for each *cawny*† of land watered—sometimes, so classified, however, that the most productive lands paid the most. Under the Native Hindú Governments, it is probable that these fees were duly applied to their proper object; the fund thus created, being disbursed by the village authorities in the case of the smaller works, and by those of the talúks in the case of the larger. When, under the Muhamadans, the system came in of renting out villages, and sets of villages to strangers, the rents included also the collection of the tank fees; but, if the rent was for a single year, or even for a short term of years (and such was commonly the case), it was more the interest of the renter to pocket the amount of the fees than to expend it on the tank or channel. And under all the various systems of revenue management, which prevailed in the disturbed times preceding the entry of the British Government, the fees were mixed up with the revenue, and the irrigation works were much neglected, from the short-sighted wish to obtain as much present revenue as possible. Hence the works fell into disorder, and grants from the revenue became necessary for their

* Professional papers of the Madras Engineers, Vol. 2, page 51.

† A. Cawney is about 1½ acres.

repair. Hence also, probably, it was, that, when the country came into our possession, the tank fees were in most districts regarded as a part of the Government revenue, and were included as such in the settlement,—the charge of keeping up the tanks being recognized as a duty of the state.

This arrangement was beneficial in so far as it brought the outlay on the tanks under systematic review ; but, unfortunately, as there was no separate fund for this object, and no separate account was kept of the revenue created by the irrigation works, or, at least, as the revenue and the outlay were not systematically and periodically compared, the true nature of the expenditure seems gradually to have been forgotten. It was forgotten that such works must need constant repair : and it was forgotten, that a very large part of the revenue of the state existed only on the condition of performing those repairs ; and the expense came to be looked on as an outgoing only, and to be most grudgingly given. And what probably tended to increase this feeling, was the knowledge that, in the absence of any adequate professional establishment to control these repairs (which for many years was almost wholly wanting), the greatest peculations were practised by the Native revenue officers, who had the direction of them. That view of regarding this very important subject, has continued with some modification even to the present day. It is true that, within the last fifteen years, the splendid success of some new works on a large scale has effected some change, and that the necessity and true economy of keeping all works in efficient repair has come to be tacitly admitted in most quarters. But still the views of the ruling powers on the subject continue to be too limited and one-sided ; the outlay is still regarded almost exclusively as an outgoing ; and far too little attention is given, even to the direct returns in revenue, not to speak of the vast addition to production, and to the wealth and comfort of the people, which that increase of revenue necessarily involves.

We have given the foregoing detail, in order to show how the tank fees being included in the revenue, and the tank repairs being made an item of Government expenditure, that change, by no means, necessarily involved the removal of the expenditure from its proper and natural position in the official accounts, among the costs of collection. It is evident that the

* We say *by inadvertence* ; for whatever may have been the cause, which led to the tank fees being included in the revenue, and the tank repairs being made an item of Government expenditure, that change, by no means, necessarily involved the removal of the expenditure from its proper and natural position in the official accounts.

first is its proper character. The revenue obtained from irrigated land, over and above the small sum, which might have been derived from dry cultivation, was created by the irrigation works, and could not exist without them ; neither could it exist, if they were not maintained by frequent repairs. The cost of these repairs, then, is a necessary condition of the existence of the revenue and of the resources which furnish it ; and, as such, the required funds were properly set apart from the gross produce under the Native Governments, before the partition was made between the ryots and the state landlord. The cost of these repairs stands, indeed, in precisely the same position, in the course towards the elimination of the land revenue, as do the expenses of cultivation. Both are alike necessary and concurrent conditions of the very existence of the resources, whence the revenue is to be paid ; and to charge the tank repairs, as an expenditure from revenue, is no more reasonable than it would be to bring the whole gross value of the ryot's crop of rice to account as revenue, and then to exhibit the value of the seed, and of manure, the cost of labour, and the ryot's share of the crop, as expenditure out of revenue. And if it is thus erroneous to show these charges as an outgoing from revenue ; it is, for the very same reasons, much more opposed to common sense to include them among the charges of collecting the revenue.

The cost of new works stands on a somewhat different footing from that of common repairs, inasmuch as the benefits to be derived from it are prospective ; but still it is obviously different in its very nature from the outlay on public works properly so called. Its sole object is the increase of the Government revenue ; and though, incidentally, it does undoubtedly vastly benefit the public, still it does so in a totally different way from that in which roads and bridges benefit them. It does not diminish, but rather increases the necessity for improved communications ; while, at the same time, it creates abundant capital for their formation. It ought not, therefore, to be included in a statement of such works, as in any degree a performance of the duty of Government, in providing such aids to the production of wealth and the progress of civilization. But if the cost of new works cannot properly be altogether excluded from Revenue, as we maintain the repairs ought to be, it is still more absurd and unreasonable that they are included among the costs of collection ; for in its very nature, it has no connection with any present revenue, nor, indeed, with any certain revenue at all, whatever well grounded expectations and probabilities of such returns there may be. In all other species of

works, it is the prescribed and uniform practice to bring new works to account as having a value, under the designation of "dead stock." If the term "dead" cannot, with propriety, be applied to property so eminently productive as irrigation works, yet they are undoubtedly a most valuable species of "stock;" and it appears to us very singular, that the right and sensible rule just specified should have been so wholly lost sight of in their case, and that the present erroneous and fallacious mode of debiting such charges should have continued so long.

We have dwelt at some length on this point—the erroneous manner of showing the charges for irrigation works in the accounts—because the result is a real evil, viz., a signal injustice to Madras, as we shall have occasion to show below. We now return to Colonel Sykes's statement; and we append it in an abridged form, showing the nine years' averages for each Presidency, but omitting the annual details, and so arranged, as to show separately the outlay on works of irrigation and on other works. The only Presidencies, which have any Government works of irrigation, are Madras and Bombay, and in the latter, they are very few.

Statement, showing the annual expenditure on various species of public works in the four Presidencies of British India, on an average of the nine years, 1837-38 to 1845-46.

	Roads and Bridges.	Canals.	Embank- ments, &c.	Total not of Irriga- tion.	Irrigation Works	Total.
1.	2.	3.	4.	5.	6.	7.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	3,43,606	43,694	1,60,820	5,48,120	.....	5,48,120
North West Provinces }	4,12,575	2,71,007	30,924	7,14,506	.....	7,14,506
Madras	3,03,514	.....	.....	3,03,514	5,55,222	8,58,736
Bombay	3,46,515	26,668	.....	3,73,182	38,672	4,11,854
Total...	14,06,209	3,41,369	1,91,744	19,89,322	5,93,894	25,83,216

It is seen from this table, that of the sum set down by Colonel Sykes as annually expended at Madras on public works, no less than 5,55,221 is the cost of works of irrigation, leaving no more than 3,03,514 as the amount really spent on public works. The sum entered, as so expended in the North-West Provinces, is 7,17,840 Rupees: in Bengal 5,48,120 Rupees, and in Bombay, 3,73,182 Rupees: Madras being thus the worst off of all the four.

But even this is by no means the whole of the case ; we have said that the table excludes some items of expenditure in the other Presidencies, which ought to have entered into it, and we now proceed to establish this second point. And here we must again regret, that our information respecting matters at Bombay is defective. We are not in a position to say whether there are at that Presidency, as in the two divisions of the metropolitan Presidency, large sources of expenditure on public works, which do not appear in the official accounts, and therefore have no place in Colonel Sykes's table;—or whether, like Madras, it is cut off from such advantages : in the latter case, we have no hesitation in saying that it is unfairly treated, though in a less degree than Madras. Even for Bengal our information is defective; because, as we have already said, the wise and liberal practice of printing public papers is in more limited use even there, than with the Agra Government.

We know, however, that both in Bengal and in the North-West Provinces, the surplus receipts of the numerous Government ferries are set apart, as a separate fund for the repair of roads and the building of bridges—and this, not under the direct agency of Government officials, but at the disposal of local committees, composed partly of the chief judicial and revenue functionaries in each zillah, and partly of its most respectable and influential inhabitants, European and Native. We know also that when the present revenue settlement was made in the North-West Provinces, one per cent of the land revenue was permanently set apart, as a fund for the repair and improvement of the district or country roads, independently of the sums devoted by the Government to the trunk lines ; and this fund amounts to above four lakhs of Rupees annually. We know also that in Bengal, the zemindars are under an obligation, which was included in their original engagements and in the settlement of the rent of their estates, to keep in repair the roads within their respective properties. It is true that this obligation is not enforced by the Government, and that the duty is attended to in very different degrees by the various individual zemindars ; still it is certain, that much is done to the roads in this way, the funds for which may be most strictly said to have been provided by the Government, inasmuch as a proportionate allowance was made in the *Beriz* of the estate. But the roads are not the chief communications in Bengal;— the real highways of that country being the rivers, which intersect it in all directions, and which are provided by nature, free of expense. But though these natural canals thus afford such cheap and valuable water carriage, yet they involve one expense, that of embankments, the maintenance of which constitutes the chief

of the public works of Bengal. Under this head, accordingly, we have in Colonel Sykes's statement, a sum of 1,60,820, directly expended annually by the Government; but this forms only a small part of the yearly cost of the embankments to the state. For the duty of maintaining the numberless smaller embankments was placed on the zemindars, when the permanent settlement was formed—a deduction having been made from the *jumma* to meet the expense. The Government have enacted regulations for rigidly enforcing this obligation; and, in cases where the duty is neglected by the proprietors, the officers of Government are empowered to execute the works and recover the cost directly from the defaulter. We have not the means of estimating the total amount expended on these works by the zemindars: but as the standing orders of Government speak of it, as not likely in general to exceed ten per cent. on the *jumma*, we think it may safely be assumed at two per cent. upon it: and in the absence of certain information, as to the deduction actually allowed on this account at the settlement, we will take it at this rate. This will give seven lakhs of Rupees indirectly contributed annually by the Government to the maintenance of the bunds, that is, to the protection of property. Lastly, in the North-West Provinces, there is another fund called the *núzúl*, or miscellaneous fund, devoted to local improvements in towns, under the control of local committees. This fund is derived from various sources, from fines, from the sale of pieces of Government land in towns, and various others; we cannot speak with accuracy as to its amount, but we believe it is certainly not less than one lakh.

Making these additions, then the amended statement of expenditure on public works in these Presidencies will be as follows, omitting Bombay for the reason above given:

	Roads and Bridges.	Canals.	Embankments.		One per cent. road fund.	Surplus ferry funds.	Núzúl, or miscellaneous fund.	Total.
			Paid directly by the state.	Indirectly through the zemindars.				
Bengal	3,43,606	1,43,694	1,60,820	7,00,000	3,50,000	2,00,000	....	17,08,120
North-Western Provinces	4,12,575	2,71,007	30,924	....	4,00,000	2,00,000	1,00,000	14,14,506
Madras	3,03,514	....	....	....	....	....	....	3,03,514

NOTE.—The amount assumed as expended on the roads in Bengal by the zemindars, is only one per cent. on the Government revenue, not on the zemindar's own collection, which would give a much larger sum.

We believe the surplus ferry funds are larger in Bengal than in the Upper Provinces; but, in the absence of accurate information, we state them only at the same amount.

Now with reference to our remarks in the foregoing paragraph, we must not omit to observe, that, at Madras, the product of all the sources of income, corresponding with those there set forth, so far as they exist, is brought to the account of Government, and merged in the general revenue. As to the road fund, indeed, none such exists in a separate form at Madras. The zemindars, constituted in the Northern Sircars and some other parts, received their estates without any stipulation for the repair of the roads, and without any deduction on that account from the *jumma*: and in the ryotwar districts, there is no deduction or allowance from the assessment for this object, nor can any obligation to repair the roads be made out against the ryots. In short, the maintenance of the communication appears to have been wholly overlooked by the Madras authorities, who formed both the permanent and the ryotwar settlements. There were no roads then, and it does not appear to have been thought necessary that any should be made: the obligation to do this was neither undertaken by the Government, nor laid on the people.

Again, as to the ferry funds; the Government ferries are few, and it is not, by any means, all of them that afford any surplus income, because there are but few rivers which are unfordable for any considerable part of the year. But the surplus, which does arise, to the amount of half a lakh of rupees, is not paid into a separate fund to be laid out in improvements, but is credited to the general revenue of the state. And it is the same with the escheats, fines, and other items, which go to make up the fund called *nūzūl* in the North-West Provinces—all such receipts, which are there devoted to municipal improvements, and do not enter into Government revenue at all, are under Madras rigidly brought to account and merged in the general revenue.

The following, then, are the plain facts of the case. In Bengal, with an extent of 1,65,443 square miles, and a population of Forty millions, the amount annually contributed by the state, directly or indirectly to public works, is £179,812 out of a revenue of £10,239,500, or $1\frac{3}{4}$ per cent.

In the North-West Provinces, with an extent of 71,985 square miles, and a population of 23,200,000, the amount so contributed is £141,450, out of a revenue of £5,699,200, or $2\frac{1}{2}$ per cent.

In Madras, with an area of 145,000 square miles, and a population of 22 millions, the amount, so given by the state, is only £30,300, out of a revenue of £5,069,500, or little more than one-half per cent. In other words, the Madras Presidency, being more than double the North-West Provinces in extent,

and containing a population nearly equal, receives in outlay on public works only one-fifth of the amount so expended in those provinces. And yet the requirements of Madras are even absolutely larger than those of the Agra territory; not only from its greater extent, but from the absence there of those navigable rivers, which form the grand highways of the upper basin of the Ganges and its tributaries.

The state of the roads in the two territories just compared, appears to correspond well with the amount of attention, which they have respectively received. We shall give in comparison a brief notice of the state of the trunk lines and of the district roads, under each of the two Governments.

First, as to the trunk roads; the great north road, as it is called, runs from Madras to Angole, where it branches into two, one diverging to Hyderabad and Nagpore, and the other going on to Guntur, Rajamundry, Vizagapatam, Ganjam, and ultimately to Calcutta. This road is the great line of communication between Madras and all the northern parts of the Presidency; for transit by sea is in very limited use, except for the conveyance of heavy produce. Travellers, both European and Native, use this road almost exclusively, as well as troops moving between the Presidency and the great military stations in the north. Yet what is the state of the road? Even within a few miles of Madras, it is not distinguishable from the paddy-fields: and piece goods are brought to Madras on coolies' heads from Nellore, 110 miles distant, and situated on this very road. Fifty miles further, it crosses an extensive swamp; and, as no means have been taken to make that swamp passable, this part of the road is useless for half the year: and carts and travellers must then go round the swamp, skirting its edge in mud and water, as well as they can. On another part of the same line, viz., near Rajamundry, a gentleman was lately four hours in travelling seven miles on horseback. Nor can it be said, that these three portions of the road are exceptional; they may safely be taken as giving a just idea of the state of the whole line. Parts of it, indeed, have at various times been repaired at considerable expense: but these have afterwards been utterly neglected, and allowed to fall again into ruin. For the most part, this line, which crosses the whole drainage of the country, is unbridged; and in the few parts of it, wherein bridges have been provided, they have been neglected, till the approaches have been wholly cut away by the rains, leaving them, as they now stand, isolated, inaccessible and useless.

Such is the condition of one of the great military lines of

the Madras Presidency ; but that, on which there is the most traffic, and which is the most important, both in a military and a commercial point of view, is the road running westward from Madras to Vellore and Bangalore. On that line a great deal of money has been spent to make a road ; and it is undoubtedly very superior to the common country roads ; but no less certainly, it is vastly inferior to what it ought to be. Travelling on it with post carriages and horses, indeed, is maintained ; but though the vehicles are commodious and easy, it is no exaggeration but the literal truth, to say that a journey between Madras and Vellore, eighty-four miles, is more trying to health and temper, as well as less rapid, than the transit of the same distance across the desert from Cairo to Suez. And the sole cause of this is, that the Government (in this instance, the Madras Government) will not incur the outlay necessary to keep the road in good repair. In striking contrast with these two roads, we will quote the brief description of the Grand Trunk Road in Upper India, given by Colonel Cautley, in a paper recently published. He says “ the Grand Trunk Road from Calcutta to Delhi is a perfect specimen of a metalled road, adapted to the rapid transit of wheeled carriages.”

Again, as to the district roads ; as a specimen of what they are in North India, we will make use of the statistical memoirs of two collectorates, lately published by authority of the Lieutenant-Governor of Agra.

The Goruckpur district contains 7,346 square miles, and it has 1,968 miles of road under the care of its local committee ; being one mile of road to every $3\frac{3}{4}$ square miles. Of these roads, 491 miles are first class, or main military and post roads ; 586, of the second class, or commercial roads ; and 891, of the third class, or by-roads. The roads of the first two classes are kept in good order ; those of the third are kept passable only ; but all are preserved from encroachment, and from becoming totally useless. And all this has been done in the few years that have elapsed since the settlement, prior to which, as Mr. E. A. Read states, the roads of the district were mere cart tracts.

The state of the roads in Cawnpur collectorate is thus described : The Grand Trunk Road passes through the collectorate east and west, a length of sixty-two miles, and there is another metalled road forty miles long from Cawnpur to Calpi. There are likewise 500 miles of unmetalled roads, which are under the charge of the local committee, with the sum of 28,000 rupees annually at their disposal—the produce of the road and ferry

funds. This district contains 2,337 square miles; and here also, therefore, there is one mile of road to every $3\frac{3}{4}$ square miles of extent.

Here then we see these two districts (and we are not aware that they are exceptional) provided with a regular system of internal communication, not yet indeed perfect, but good and improving; with funds permanently set aside for their repair and improvement, and that independently of the painfully tedious delays of constant reference to Government; and with a local machinery in operation for directing the expenditure of the funds in the most beneficial manner. But how is the case in the Madras presidency? Unfortunately we are without the means of giving any official information of the condition of the roads there: but we present the following sketch of the roads of one district, as one which will be recognized on the spot as correct. The Cuddapah collectorate is a large district, measuring 13,000 square miles, nearly twice the size of the whole of Wales, and almost as large as six districts such as Cawnpur. A large part of the surface of this district is cotton soil, very productive, but the worst of all materials for roads; other parts are wild and mountainous. It does not appear that any considerable outlay has ever been made on the roads of this extensive tract, during the half century that it has been under British rule, though, during that period, fully Fourteen Millions sterling have been drawn from it in direct revenue. The consequences may be supposed. Roads cannot be said to exist; in the cotton soil a little rain makes the tracks impassable: and, every where, carts, when used at all, are only able to carry half the load, and to travel half the distance in a day, that they could on a made road. Nor is this all: the road from this extensive district to the Presidency is in no better state. It is in short proverbially bad, even among Madras roads; and there is one part of it, which is literally used by the Military Board as a trial ground to test the powers of new gun-carriages, which are pronounced safe, if they pass this severe ordeal! Cuddapah is a rich and productive tract; its indigo is celebrated; and it is one of the finest cotton fields in South India: but it is needless to say, that its prosperity is dreadfully impeded and kept down by the disgraceful state of its internal roads, and of its communication with the natural outlet for its produce. Other districts might be named, only second to this in extent, and hardly inferior in their capabilities, in which the internal communications are no better. Indeed, there are few districts in which the country roads, as distinguished from the chief trunk roads, have received any attention

whatever, and to all, but those few, the description of the roads of Cuddapah is applicable.

Our wish to exhibit to our readers the actual results of the different systems followed in the North West Provinces and in Madras, with respect to the roads, has led us into some digression: we now return to the thread of our subject. We think we have shown, that the statement, quoted from Colonel Sykes by the *Friend of India*, is erroneous: that the sum there set down as having been expended on public works in the Madras Presidency, is far beyond the truth; while the amount similarly expended in other Presidencies, especially in the North West Provinces, is much larger than is there shown—the result being thus, however unintentionally, a double misrepresentation against Madras. We now come to the only remaining allegation of the *Friend of India*, which we have to notice, viz., that the “Indian Chancellor of the Exchequer is strictly impartial, and treats all the Presidencies alike” in dealing with their applications for grants of money for public works. After what we have already brought forward as to the amounts expended on public works, under the three Governments of Calcutta, Agra and Madras respectively, a direct refutation of this assertion may seem superfluous; but we think it necessary to explain in detail how the actual result is brought about. And in meeting the allegation, we will first show the mistakes and inconsistencies, through which the costs of collecting the land revenue appear in the accounts to be much heavier in Madras than in the other Presidencies, more especially than under Calcutta and Agra; we shall then point out how the military charges of the Madras Presidency are improperly increased, by debiting her with the expenses of garrisoning extensive countries, of which the revenues go to the credit of other Presidencies; and, lastly, we shall notice the practical injustice to Madras, of which these errors in account are productive.

First, then, as to the cost of collecting the revenue. According to the published official accounts for the years 1845-46 to 1849-50, the charge for collecting the land revenue (with the Abkari and Moturpha in Madras, and the Abkari and Sayer at the other Presidencies) was $9\frac{3}{4}$ per cent. in Bengal, $9\frac{1}{2}$ per cent. in the North West Province, $13\frac{3}{4}$ per cent. in Madras, and $14\frac{3}{4}$ per cent. in Bombay. But we propose to show that those accounts are fallacious on this point; inasmuch as the term “charges of collection” is very far from containing the same classes of particulars in all the four cases. We have already shown that the expenditure on works of irrigation, to the amount of 5,55,000 rupees annually, is improperly included

among the costs of collection at Madras: and to this must be added about two lakhs, for the Civil Engineers and establishments belonging to the Tank department, making a total of seven and a half lakhs, or nearly 2 per cent. on the land revenue collection. This, however, is very far from being all; and we now proceed to show that items to a very much larger amount, which are certainly part of the cost of collection, and which are no less certainly paid by Government, do not appear in the accounts of Bengal and the North West Provinces, while at Madras similar charges are exhibited among the costs of collection.

One great difference consists in this, that, under a ryotwar settlement, such as that prevailing in the greater part of the Madras Presidency, where the whole revenue is directly collected from the individual ryots, or occupiers of land, by the agency of Government servants, large expenditure appears in the accounts for the salaries of such agents; while, under a zemindary settlement, such as that of Bengal, or a system of village leases like that of the North West Provinces, still larger sums are permanently remitted—to the zemindars in the former case, to the collective body of villages in the latter—for the expenses of managing and collecting the revenue. It is surprising that the present anomalous and fallacious mode of comparing the costs of collection under the several Presidencies has been allowed to continue so long; and that a fair mode of making the comparison has not yet been devised. It cannot be ascribed altogether to oversight: for the facts, as we have briefly stated them, were brought prominently forward by Mr. J. Mill, in his examination before the Select Committee in 1831. He there clearly explains (Questions 4077 to 4099) why the charges of collection appear larger under Madras than in the other Presidencies, alleging the same causes which we have assigned. His evidence on this point extends to too great a length to be extracted here in full: but the following is its purport. The charges of collection in the accounts then before him were from $15\frac{1}{2}$ to $17\frac{1}{3}$ per cent. in the ryotwar provinces of Madras; in Bengal $6\frac{1}{2}$ per cent.; and in the Upper Provinces, from $9\frac{1}{3}$ to $10\frac{3}{4}$. Mr. Mill truly explains the difference to be owing to the greater cheapness of collecting a fixed revenue, under a permanent settlement, where an allowance, exceeding the actual cost of settling with, and collecting from individuals, has been already struck off in making the settlement, and so does not enter into the accounts at all. Thus in Bengal the apparent costs of collection were $6\frac{1}{2}$ per cent.: but, in forming the settlement with the zemindars, 10 per cent. was allowed them for the costs of the detailed process, and was struck off

the *jumma* ; and this, being added to the present actual charge to Government, at once raises the proportion to $16\frac{1}{2}$ per cent. And, Mr. Mill adds, the one-tenth allowed to the zemindars has in the course of improvement become two, and even three or four-tenths ; so we may safely say that the real costs of collection in Bengal at this time are at least 25 per cent. on the amount paid by the actual occupants of the land—being very much higher than the highest per-centage under ryotwar settlements at Madras.

We are unable to state precisely the amount allowed from the *jumma* for the detailed processes of collecting the revenue, in the recent village settlement effected in the North West Provinces ; but as far as we can gather from the published documents respecting it, which we have had the opportunity of seeing, it was generally 10 per cent. there also ; and this, added to the 9 per cent. directly borne by Government as above shown, raises the total cost in those territories to 19 per cent.—again exceeding the highest proportion at Madras, even including the outlay on irrigation, there improperly entered among the costs of collecting the revenue. Nor is even this the whole. Mr. Mill adds, that various local expenses are, under the Madras Government, included among the costs of collecting the revenue, though having no connection with it at all. A careful consideration of the published annual accounts leads to the belief, that this is still the practice to some extent, though we are unable to specify the probable amount.

We now come to the military charges : and here we have to enumerate the countries of which the military charges are borne by Madras, while the revenues are put to the credit of other Presidencies.

The first, which we shall mention, is the Ságur and Nerbudda country. This territory, formed of cessions from the Nagpore Rajah and from Holkar, yields a land revenue of above Forty lakhs of rupees. It is administered by Bengal officers ; and the collections go into the coffers of that Presidency : but it is exclusively garrisoned by Madras troops, the charges for which are wholly borne by their own Government.

2nd. Again, the tribute of Eight lakhs of rupees, paid to the British Indian Government by the Nagpore Rajah under the treaty of 1829, goes into the Bengal treasury ; but the British troops stationed in that country belong to Madras, and the charge of them is borne by that Presidency.

3rd. So also, Holkar, together with his cessions of territory in 1818, surrendered to the British Government his rights to tribute from various Rajput states, amounting to Sixteen lakhs

annually; and, in return for the whole territory and tribute, a British force was to be maintained, to secure the tranquillity of his remaining dominions. The tribute, like the revenue of the ceded territory, goes to Bengal; but the force, stationed at Mhow in accordance with the treaty, has, for several years past, been furnished and paid for by Madras.

4th. The next instance is the province of Cuttack. It appears, from the recently published official reports of the settlement of this province, that, in the items of land and salt only, exclusively of all other sources, it yields Twenty-three lakhs of rupees. This country is wholly garrisoned by Madras troops, and has been so for the last eleven years: and yet, while the whole revenue of the province goes to Bengal, the cost of the troops is entirely borne by Madras.

5th. The southern Mahratta country was wholly occupied by Madras troops from 1837 to 1846: and at the present time, two regiments of native infantry and one of light cavalry, belonging to that Presidency, are stationed in it; but the country is administered by Bombay officers, and the whole revenue is credited to that Presidency.

6th. In like manner, Madras troops garrison Moulmein, Tavoy, and Mergui, of all of which the revenue goes to Bengal.

7th. Penang, Singapore and Malacca are thus held by Madras, while the revenue goes to Bengal.

8th. And lastly, Aden, though in no respect exclusively belonging to Madras, is garrisoned, in great part, at the cost of that Presidency.

Nor should we omit to notice the mode of dealing with money received from hostile powers, in reimbursement of the costs of wars, in which Madras bore a chief part; viz., the Burmese and the Chinese expeditions. For the Burmese war twenty-five sepoy regiments were furnished from Madras, and not a single sepoy from Bengal, except a few troopers of the body-guard; the European regiments engaged went in about equal parts from the two Presidencies. The war was exclusively for Bengal objects; so that Sir T. Munro, the Governor of Madras, expressed the greatest surprise, when he learnt that it was to be undertaken.* But though this was the case, and, though Madras bore by far the larger part of the expenses; yet the whole of the crore of rupees (a million sterling), paid by the King of Ava for those expenses, went into the Bengal treasury—no part of it, whatever, being credited to Madras.

And it was the same with the China war. The object of that

* Life, vol. II., p. 220.

war was to secure the opium revenue : and it fully succeeded ; for the opium receipts of Bengal, which, on the average of the five years, 1834-35 to 1839-40 (omitting 1837-38, of which we have not the accounts at hand), amounted to only 1,33,62,450 rupees, and which, in 1839-40, fell to seventy-six and a half lakhs, exceeded 303 lakhs, or more than three crores, on the average of the five years, 1845-46 to 1849-50. So also the Bombay opium revenue averaged only 18,60,000 in the former of the same two periods, and exceeded sixty-six and a quarter lakhs in the second—the whole receipts from this source being thus much more than doubled. In this case, as in the preceding one, the greater part of the costs of the war fell on Madras. That Presidency supplied seven regiments of native infantry, several companies of sappers and miners, a rifle company, horse and foot artillery, and commissariat and ordnance stores. Bengal sent three regiments of Queen's troops and a regiment of sepoy volunteers. At a moderate computation, the charges of the Madras quota amounted to fully two-thirds of the whole of the force sent from India.* The whole of the expenses of the Madras troops engaged were borne by their own Presidency ; the money being obtained by bills on Calcutta, and there debited to Madras, under the head of "supplies obtained."

But though this was the case, not a fraction of the compensation paid by the Emperor of China was ever credited to Madras. That compensation amounted to Twenty-one millions of dollars, besides Six millions for the ransom of Canton ; and of that sum, Eight millions of dollars, or about two crores of rupees, was paid to the East India Company, being the computed amount of the extra expenses incurred by them in the war. And the whole of those two crores of rupees went to the credit of Bengal. Madras had expended 130 lakhs in the war, not for her own advantage, but for that of Bengal ; and it would have been no more than fair, therefore, for the latter Presidency to reimburse her, even if no compensation had been obtained from the emperor. Far from that, however, the compensation, which was actually paid for the expenses of Madras, was pocketed by Bengal. Neither in this case, nor in that of the Burmese war, was any deduction made in the demand of surplus revenue from Madras, in consideration of the extra expenses defrayed by her in foreign wars for Bengal interests.

The following table shows the particulars of the Madras

* There were also some royal troops, both artillery and infantry, sent direct from England and from Ceylon ; but we take no notice of these, as they did not enter into the accounts of the East India Company.

troops now garrisoning countries, of which the revenue goes to other Presidencies :—

TERRITORIES.	Amount of revenue derived from each.	To what Presidency paid.	Madras troops occupying those territories.				Probable annual cost of those troops.
			Nat. Cavry	Nat. Inftry	Horse Artry	Foot Artry	
			Regts	Regts	Trps.	Comps.	
1. Ságur and Nerbudda country ... }	59,80,870	Bengal ..	2	5	0	3	27,25,000
2. Mhow ... }							
3. Nagpore subsidiary force ...	8,00,000	Bengal...	1	4	1	2	20,50,000
4. Cuttack and Balasore ...	23,00,000	Bengal...	0	1	0	$\frac{1}{2}$	3,58,000
5. Southern Mahratta country ...	20,00,000	Bombay..	1	2	0	0	10,50,000
6. Tenasserim Coast ..	6,50,000	Bengal...	0	2	0	1	7,50,000
7. Penang, Singapore and Malacca ...	6,92,000	Bengal...	0	1	0	$1\frac{1}{2}$	4,75,000
8. Aden ...	...	...	0	1	0	$2\frac{1}{2}$	5,75,000
Total...	124,22,870	..	4	6	1	$10\frac{1}{2}$	79,83,000

The revenues, set down in this table, are taken chiefly from the Parliamentary papers. The most authentic account of the revenue of the Ságur and Nerbudda territory is in a statement of the revenues of the East India Company, dated 9th February, 1830, No. 22. The collections for the first nine years of the British occupation are there given; but the first year is evidently incomplete, and the second includes a large sum on account of former years. We have therefore rejected those two years, and taken the average of the remaining seven. The Rajput tributes are not shown separately in that paper; and we have assumed, that they are included in the revenue of the territories on the Nerbudda.

The country, ceded in payment of the Nagpore subsidiary force, is included in those territories; but, to avoid confusion, we show that force separately, together with the eight lakhs of money payment, received annually from the Nagpore Rajah.

As to the southern Mahratta country, we have no very accurate information; but we have stated what we believe to be the minimum revenue of the country, commanded by the three stations, Dharwar, Sholapur, and Kulludghi, now occupied by Madras troops.

The revenue, shown for the Tenasserim coast, is one-third of that of the whole Burmese cessions, on an average of the last five years 1845-46 to 1849-50—that being the proportion which it bears to the whole, in those years for which we have detailed accounts.

The revenue of Penang, Singapore and Malacca is the average of the same five years.

The estimate of the cost of the troops only professes to be an approximation; but we believe it is not very far from the truth. It is based on the assumption, derived from the best sources of information at our command, that, including stores, and due share of pensions and staff, the annual expense of a regiment of native infantry on full batta, is three and a quarter lakhs of rupees: that of a regiment of cavalry, four lakhs of rupees: of a troop of horse artillery, a lakh and a half; and of a battalion of foot artillery (comprising four companies) four lakhs of rupees.

Thus, then, we find that no less than eighty lakhs of rupees, of what are called the military charges of Madras Presidency, is the cost of troops occupying countries not forming a part of that Presidency, and of which the whole revenues are carried to the credit of other Presidencies. Now it seems self-evident, that this system of keeping the accounts is decidedly unfair; and bare justice seems imperatively to require, that where troops of one establishment occupy territory of which the revenues go into the treasury of another Presidency, the whole cost of those troops shall be borne by the latter. There are some frontier posts indeed, and some isolated places, such as Aden, at which strong garrisons must be maintained, not for the exclusive security of any particular territory, but for the safety or advantage of the whole empire. Such cases are exceptions to the foregoing rule; but they by no means invalidate it as generally applicable. In these exceptional cases, the charges being imperial and not local, should be debited to the several Presidencies, in the proportion in which their interests are respectively involved in the maintenance of the posts.

But it may be said, why so much of what is after all a mere matter of account? The whole empire is one; and, even if the debits and credits are somewhat incorrectly adjusted between its several divisions, what does it signify?

If the observation were true in fact; if in this regard the empire were really looked upon as one; and if the whole question were, indeed, simply one of account, we should fully acknowledge, that mere inaccuracies of such a nature are not deserving

of much serious notice. But the case is very different: and the reason why we do lay so much stress on the erroneous entry of these charges is, that it has operated, and still does operate, as the cause of much practical evil and injustice, as respects the Madras Presidency; and we will now briefly enumerate a few instances.

We have already pointed out how meagre an amount is allowed for public works in that Presidency, compared with what is so expended in the two divisions of Bengal. And this difference is directly and closely connected with that erroneous manner of debiting charges, on which we have been remarking. Many years ago, Fifty lakhs were fixed as the amount, which Madras ought to contribute to the general expenses of the Empire, over and above her own charges; and, from 1821 to the present time, it has been the constant practice to press retrenchment and economy on that Presidency, and to refuse sanction to expenditure or improvements essential to her advancement, on the plea that her surplus fell short of that required amount. And this in the face of the fact, that no less a part than Eighty lakhs of the military expenditure of that Presidency is incurred in the occupation of countries of which other Presidencies receive the revenue. Thus Madras is screwed down to the lowest point, on the false ground that she does not pay her fair quota of revenue; while Bengal, on the reputation of an enormous surplus, a large part of which is obtained at the expense of Madras, is allowed to revel in expenses and extravagance. Let Madras be relieved from the burden thus unfairly laid upon her, and abundant funds will be found for public works, and for relief from injurious and impolitic taxation.

We may add that numberless openings exist for improving and extending irrigation, so as to yield a direct return in revenue, to the extent of from 30 to 50 per cent. annually; and yet these unequalled opportunities, for adding alike to the resources of the state and to the wealth of the people, are neglected, because, under the present system of keeping the accounts, any large outlay on such works would raise the apparent cost of collection on the whole revenue. It is overlooked that, if a lakh of rupees is expended in a work which returns a revenue of 50,000 rupees annually, the revenue is a large gainer; although the outgoings, or even the apparent cost of collection, are augmented in the year in which the work is constructed.

Again, in regard to the Sayer, or transit, duties, which were always much heavier in Madras than in the other Presidencies—being there in fact, not duties on transit only, but on production

also—those duties, we say, were continued in that Presidency long after their abolition in the other parts of the empire, simply on account of their very exorbitancy. And they would, probably, have subsisted there to the present time, but for the accession to the head of the Indian Government of a nobleman, who, whatever may have been his other defects, had a quick eye for an injustice ; and, having seen it, refused to admit the usual pleas for postponing the remedy.

Precisely the same injustice is even now in operation in the case of the *moturpha* tax. The *moturpha* is a direct tax, levied on trades-people and artizans ; that is, on those non-agricultural classes, whom it is so important not to repress or discourage in India. The amount is insignificant—only £116,000 ; but this trifling sum is laboriously collected from very nearly a million contributors. It is an impost hardly less unwise and impolitic than the Sayer, and is much more unequal. It has been put an end to under all the three Governments of Bengal, the North West Provinces, and Bombay : but it still continues under that of Madras.

Nor must we omit to notice the tobacco monopoly in the districts on the Malabar coast. The tobacco, required for the consumption of those districts (in which it is regarded as a necessary of life), is chiefly supplied by the adjoining districts of Coimbatore, where it is purchased by Government officers, conveyed across the frontier, and sold at an enormous advance. As a matter of course, smuggling is systematically carried on through the thick jungles, and by the secret mountain passes ; being only equalled, perhaps, by that of the Pyrenees. Trained in such a school, the smugglers are ready for any villany ; and most of the dacoities in that part of the country are perpetrated by them. The system is likewise extremely demoralizing to extensive revenue establishments, and, especially to the preventive class, who may be met with on friendly terms with men actually transporting the forbidden article. Yet all this oppression, demoralization and crime, are maintained by the Government for the sake of a paltry revenue of £63,000.

Again an accurate revenue survey of cultivated and culturable lands is acknowledged to be the basis alike of a sound and equal settlement of the land revenue, and of the security of landed property. And this is eminently the case in the Presidency of Madras, where, under ryotwar tenures and a field assessment on the one hand, the Government demand varies from year to year, with every field or part of a field cultivated or left fallow ; and, on the other, individual holdings are so

minute. But though such a survey has been completed at a great expense in the North West Provinces and in parts of Bengal; though the same process has been nearly finished in Bombay, and is in progress even in the newly acquired Punjab; yet no commencement has been made in Madras. Not a single district of that Presidency possesses a scientific or accurate survey; and in most, either no survey has ever been made, or it is known to have been hastily and carelessly done, and to have been extensively tampered with afterwards. The cause of this peculiar neglect appears to be the same plea, viz., that the revenue charges are already too high. Even admitting the truth of the fact alleged, it would not be difficult to show that it would be wise to incur the cost of a survey. But, in point of fact, the premises are as unsound as the reasoning; for when the accounts are fairly balanced, it will be found that the charges at Madras are very far from being higher than under the other Governments.

Again, it cannot be denied that a larger amount of European agency is required in the administration of the several districts. In the North West Provinces it is laid down that no collector ought to have charge of a larger revenue than Fourteen lakhs of rupees; and, in point of fact, the average to each is now Thirteen lakhs of revenue, and an area of 2,322 square miles; and besides the thirty-one collectors, there are five commissioners. Under the Madras Government, each collectorate yields on an average Eighteen lakhs, with an area of above 7,000 square miles; and there are no commissioners. Yet it is undeniable that the Madras revenue system brings far more labour on the collector than the village system of the North West Provinces; and the necessary consequence is, that a collector, however zealous and laborious, finds it physically impossible to get through all the work thrown on him, and is absolutely compelled to neglect some parts of it. It is urgently required, that the larger districts should be divided, or other means adopted for relieving the collector and supplying more European agency; but, instead of this, various measures have been adopted within the last few years, having in view precisely the opposite end, on the mistaken plea that the costs of collection were exorbitantly heavy.

And in like manner, an increase of the corps of engineers is absolutely necessary to the efficient and economical carrying on of the numberless works essential to a thriving condition of the people, and the general improvement. This necessity has been repeatedly urged on the court in Leadenhall-street

by successive Governments at Madras; and it has been acknowledged there; but the applications for an augmentation have been refused or staved off, with a short-sighted policy, similar to that which limits the outlay for works of irrigation, and based on the same unfounded supposition that the charges of the Presidency are already heavier than they ought to be.

This list might be lengthened; but we have given instances enough to show that the mistakes of account, which we have described, are sources of real practical injustice. And now a few more words on those mistakes themselves. We feel sure that they will be admitted as disproving the assertion of the *Friend*, that "the Indian Chancellor of the Exchequer", as he styles Mr. Dorin, is rigidly impartial, dealing out the same measure to all the divisions of the empire. This cannot be maintained to be the case, so long as one of those divisions is charged with expenses, which do not belong to it, and its charges, so unfairly augmented, are made the ground of curtailing expenditure essential to its prosperity—and, we may add, not less essential to the maintenance, or conducive to the improvement, of the Government revenue.

But while we thus point out the existence and the source of the injustice, we are well aware that neither the one nor the other had its origin with Mr. Dorin, at least not by any means with him exclusively; and we would be equally far also from charging the injustice, as we must be permitted to call it, to design on the part of any one. We would rather suppose that the result has followed from adhering too strictly to general rules, without duly observing their particular effects. Thus it is a just and proper rule, that the cost of repairs, incurred for the service of each department of the administration, shall be charged to that department; and it is from failure to observe the essential difference between irrigation repairs and the repair of revenue buildings, which has led to the former being improperly included with the latter, among the expenses of collecting the revenue. And further, as even new irrigation works are, for some reason not apparent, entered in the accounts under the head of "tank repairs," the whole outlay on such works appears under that title, and is not only debited to the revenue, but is added to the cost of collection.

Again it is very proper that the costs of collecting the revenue in different parts of the country, and under different systems of administration, should be compared. But when this comparison is made, without due care to ascertain what items are really included in the term in each case—to make sure, in

other words, that the things compared are of the same kind, not in name only, but in reality—then the comparison, instead of being a guide to useful truth, becomes a source of mischievous error.

Again it is right that the military expenditure of each Presidency should be compared with that of the others. But it is obviously a perversion of this wholesome rule, when the cost of troops is debited to one Presidency, while the revenue of the countries, which they garrison, is credited to another.

It is said that a wrong, made known, is half redressed; we have endeavoured in the foregoing observations to make plain the existence of a wrong, of which Mr. Dorin has power to effect the removal; and we challenge him to prove the truth of the *Friend's* encomium on his fairness, by immediately adopting measures for that object.

We have thus gone through the general allegations of the *Friend*; and we have only to make one remark on the character, which he gives apologetically of the Indian Chancellor of the Exchequer. It is obviously contrary to sound principle, that the power to stop improvements, affecting the welfare of a whole people, should be vested in the hands of a mere "financial being;" that a man, whose views are narrowed to the single object of "improving the finances in every possible way, "sometimes by retrenching existing expenditure, at others by "negativating all new demands," should be in a position to decide on projects for increasing the wealth and happiness of the people, or even for improving the revenue. It is clear, that such considerations are beyond the grasp of a mind so schooled to the sole contemplation of a single object, "the state of his till." The prevailing feeling of such a functionary will be, that whatever increases expenditure must be an evil; he will refuse to listen to the clearest proofs of future gain, as a consequence of it; and he will fail to recognize the connection, which exists between cheap and rapid communication and increased demand for labour and for the produce of the soil, on the one hand, and the extension of cultivation, and increase of revenue on the other; and he will shut his eyes alike to the good policy, and to the duty, of labouring to improve the moral and physical condition of the people, for whose benefit alone Government exists. All these considerations fall within the province, not of the financier, but of the statesman; who commits a heavy dereliction of the duty, when he abdicates his functions in favour of the other.

In conclusion, if the Indian administration is to be effective,

the progress of centralization must be arrested. The local Governments must be vested with enlarged power of action: really able men must be selected to hold them, and must be stimulated to activity by the possessing of the power of doing good, and by a known responsibility, not only to their employers, but to public opinion; and the general Government must be restricted from ordinary interference, except in clearly prescribed imperial questions. Nor is this all; the paramount Government must be general in reality, and must be so constituted as to be free (as far as possible) from local predilections or partiality. To this end, not only must the Council of India (if that most costly machine is still to be maintained) be composed of men from all the Presidencies; but the Secretaries to the Indian Government and to the Governor-General must also be similarly selected. Without such guarantee, on the one hand, for the independent and vigorous action of the local Governments, and on the other, against the unjust preferences and preponderance of sectional and metropolitan interests, a more just and equal administration of affairs is not to be expected. The Presidency of Madras, though greatly exceeding the United Kingdom in extent, and having a civilized, peaceful and industrious population, less only by one-fourth, will still be looked upon in Bengal, as a distant and insignificant dependency, only valuable as furnishing funds for improving the North West Provinces, or the Punjab; her own vast capabilities of improvement will still be ignored or neglected; the imperial accounts will still be so drawn up, as to bring her in always a debtor; fiscal and administrative improvements, long enjoyed by the other portions of the empire, will be refused to her; pernicious or burdensome taxation, removed from every other part of the empire, will still be left to press on her resources; and in the end, a declining revenue, a ruined commerce, and a pauperized people—results produced by a long course of this destructive policy—will be ignorantly but exultingly pointed to by its upholders, not as its effects, but as reasons justifying its adoption.

ART. VI.—1. *The Bethune Society, as ascertained from the published proceedings of its first meeting.*

2. *The Sanitary Improvement of Calcutta, a Discourse read before the Bethune Society, at its second meeting, on Thursday, the 8th of January, 1852. By S. G. Chuckerbutty, M. D.*

EVERY step in the march of human progress is worthy of being recorded. The means by which great nations have risen to the highest state of power and dominion, and the process by which magnificent and nearly boundless empires have fallen to decay, have always formed favourite subjects of speculation to philosophers.

Historians have ransacked the records of nations, and exerted the loftiest powers of human intelligence in the attempt to elucidate these mysteries.

Antiquaries have disturbed the dust of ages to exhume the dry bones of by-gone times, and clothe them in the living garb of their normal state.

Politicians and political economists profess to shape their course, and to deduce their principles of action, from the experience of the past applied to the condition of the present.

Moralists have pondered over the pages, recording the springs and results of human actions, and extracted from them the finest lectures of practical wisdom and reproof.

All mankind have listened with awe and wonder to the tales of the shining splendour, or fallen glory, of cities, and nations, and empires, now buried in the dust of oblivion.

The early history of India is full of the gravest matter for meditation. Its interest is scarcely exceeded by the story of the countless hosts of Sennacherib, the marvels of the winged lions of Nimroud, the wonders of the city of the hundred gates, or the glory of the Queen of Palmyra. During the fabulous period of her golden and silver ages, she is represented as the abode of peace and plenty—the centre of civilization—the origin of arts and sciences—the cradle of liberty and religion. In a more advanced state, she became a prey to the ruthless ruffians of the North and West; who laid waste her fields, pillaged her cities, destroyed and desecrated her temples, carried her daughters into captivity, dishonored her matrons, cast back her civilization into the gloom from which it had emerged, and left her conquered, prostrate, and utterly degraded. True, she still remained fertile and fair to view; for the hand of man was unable to deface the image of nature.

Some of her arts and manufactures continued to flourish. The fairy looms of Dacca wove their webs of gossamer. The gold and silver-threaded garments of Benares lent their aid to the barbaric splendour of the vice-regal courts. The delicate tracery and mimic flowers of their jewellery, unrefined by taste, dimmed the pure refulgence of the diamond, and robbed the pearl of its priceless lustre ; yet produced a gorgeous and garish effect, more consonant to the vitiated vision of the followers of Shah Jehan and Jehangir.

But man was degraded from the image of his Creator. The gentle and timid Hindu adopted many of the worst practices of his unscrupulous master, and resorted to craft, cunning, the most servile, cringing, and the lowest vices and chicanery, to enable him to drag on his dishonoured existence. His ancient spirit was lost ; with liberty fled truth and honesty ; his very religion was corrupted ; and the nation became, what it still is to a great extent, an effeminate, cowardly, spiritless, dependent, crushed, and broken race.

In this state was Bengal found by her present rulers ; and from this condition it is, that every effort of Education and Missionary enterprise is being made to rouse her. The mission of England in the East is the most glorious and the most sacred, that has ever been entrusted by Divine Providence to a nation. Opinions may differ as to the most direct means of accomplishing the regeneration of a country so long steeped in the most concentrated bigotry and superstition. Yet all really liberal-minded men must allow, that every species of knowledge, that removes a prejudice, corrects an error, points out a fallacy, and teaches the straight path, even in the social relations and ordinary intercourse of the people, is in itself a step in the right direction. The axe has been laid at the root ; and the tree *must* fall. The time and manner of its descent are not susceptible of exact solution : but the accomplishment of the event is as certain as the path of the sun through the heavens, or the advent of light and day upon the close of darkness and night.

As in the natural, so in the moral, revolution, the earliest dawn will be grey and indistinct ; the rising of the sun of truth gradual, from the first faint blush of rosy morn, to its full splendour and glory, when its noon-tide rays shall once again fall upon a happy, prosperous, and contented people—not in the sense attached to these terms in the early infancy of mankind, but in the literal meaning now belonging to them, when applied to a moral, religious, and educated nation. Scholastic discipline, and the didactic knowledge acquired

within the walls of a school, may accomplish much ; but these can scarcely, even in the most favorable circumstances, do more than lay the foundation. The elevation and adornment of the superstructure must always be the work of the individual himself.

To prevent the effacing of the images impressed in the state of pupilage—to generate a taste for the cultivation of literature and science on their own account—and to infuse into the minds of the educated youths, who leave our institutions, a preference for pure and intellectual over sensual pursuits, and a thoughtful, determined, and inquiring spirit—can only be effected by improving their social condition, and affording them the means of keeping up, interchanging, and advancing their knowledge. The home of the cultivated Hindu is a moral blank. His social circle is not hallowed by the pure and ennobling influence, which can alone result from the presence of virtuous, educated, and accomplished females. From the light and cheerful spirit of the busy world without he retreats to the gloom and soul-less influence of his household within. The prejudices of caste bind him in an adamant chain, which few have strength and resolution to break. His intercourse with other families is restricted by the same impenetrable barrier.

To discover, then, a neutral ground, where all can meet on equal terms, is an incalculable benefit to such a state of society. To accomplish this desirable end is a task of no small difficulty, where the elements of discord are many and strong, the bonds of union few and weak. The proverbial apathy of a naturally indolent constitution has to be stimulated, to cause even the slightest physical exertion beyond the ordinary pale of a life of ease and repose. The *vis inertiae*, or power of resisting any change attempted to be made in his actual state, is developed in the highest degree in the Bengali. Although more a passive than an active condition, like the inertia of matter, it needs a powerful and long-sustained effort to overcome. That, like all bodies propelled by an irresistible motive agent, it will acquire strength as it proceeds, is not to be doubted. A quaint old Hindu writer, among the temperaments common to his countrymen, has asserted that many of them are “men having the disposition of trees,” who “always wish to remain in one place, are always eating, and will not work.” To transplant such arboraceous specimens of humanity, and cause them to flourish in a soil uncongenial to their nature, will tax the genius and puzzle the appliances of the most accomplished moral cultivator.

Among the means best fitted to fulfil many of these conditions, is, undoubtedly, the establishment of literary and scientific

societies. The intellectual gladiatorship, which they call into being, and the generous spirit of harmless rivalry begotten by them at the most interesting and important period of life, cannot fail to produce a wholesome effect on the minds of the young, and to result, when properly conducted, in leaving lasting impressions of the healthful and invigorating influence of moral and mental pursuits.

Such has been found to be their effect in developing the character, and strengthening the powers of reasoning, of the high-born youths of our English Universities. The future fame of some of the most eminent and gifted statesmen, divines, and philosophers of Great Britain, has been foreshadowed in the success attending their exertions to shine in the debating societies and social gatherings of their respective colleges. Nay, even the future career of distinction of not a few names that will never die, has been determined by the impulse acquired in these youthful contests.

Like causes in all cases produce like effects. What is true of Cambridge, Oxford, Edinburgh, and Dublin, is equally true of Calcutta. There is, probably, much less difference in the original mental constitution of various nations, than most metaphysicians have imagined. At all events, in the power of acquiring knowledge, and the capacity to master the technical difficulties of the highest departments of abstract science, the Hindu has proved himself to be not a whit inferior to the best of his western contemporaries. Where he fails, is in the subsequent application of his acquired information, and in the determined vigour, with which the great battle of life is fought by his Anglo-Saxon prototype, as contrasted with the easy, predestinarian spirit, in which he is content to sink, unshamed and insensible, into the most absolute state of degrading dependence.

The British boy, and, still more so, the younger son of the Saxon race in the great Trans-Atlantic republic, is impatient of restraint and control, chafes and frets at the procrastination of the time of his emancipation, and longs early for the independent struggle, by which his way is to be cleared and his fortune secured, in the yet uncertain destiny of the future.

In some of our Indian institutions may still be seen the bearded adult and the downy-faced boy—the father of a tribe of puny children, and the infant scarcely so old as his own first-born—sitting side by side, on the same bench, drinking at the same fountain, candidates for the same rewards, competitors in the same unequal race !

Such a phenomenon, in the same class of society, is, proba-

bly, witnessed in no other country in the world. If, according to the Roman orator's paradox, "wise men are free, but fools are slaves," this is, indeed, a land, from which liberty has fled, and that *maximum miraculum, homo sapiens*, is hard to find.

One great remedy for this organic disease is, undoubtedly, to be found in bringing educated natives more frequently into harmonious associations with each other, and in teaching them, by more direct personal contact with their European brethren, the lessons of practical wisdom in which they are so lamentably deficient.

The want of some such means of mental recreation and improvement has frequently been felt by the more enlightened and masculine-minded of the educated natives of Calcutta ; and debating societies have, at different times, been established by and among them. They were all, however, sickly plants, most of them feeble and ephemeral ; and none survived the age of infancy.

The most sustained and vigorous effort was made in 1838, when an institution called "*The Society for the acquisition of General Knowledge*," was established. The manifesto embodying the proposal, from the adoption of which the association was called into existence, is well worthy of preservation, and will, doubtless, hereafter, be referred to as one of the signs of the times of its existence, and one of the landmarks of the gradually receding tide of ignorance.

It is prefixed to a volume of discourses delivered at the meetings, and published in 1840-42 and '43 :—

COUNTRYMEN,—Though humiliating be the confession, yet we cannot, for a moment, deny the truth of the remark so often made by many able and intelligent Europeans, who are, by no means, inimical to the cause of native improvement, that in no one department of learning are our acquisitions otherwise than extremely superficial. We need only examine ourselves in order to be convinced of the justice of the remark. After the groundwork of our mental improvement has been laid in the school, (and a school tuition seldom does more) we enter into the world and never think of building a solid superstructure. The fate of our Debating Associations, most of which are now extinct, while not one is in a flourishing condition, as well as the puerile character of the native productions that appear in the periodical publications, are lamentable proofs of this sad neglect. If a tree is to be known by its fruits, where, with but one or two solitary exceptions, are the fruits to which we can point with pride and satisfaction, as manifesting any degree of intellectual energy or extent of learning ? We have ever sincerely regretted the want of an institution, which should be the means of promoting frequent mutual intercourse among the educated Hindus, and of exciting an emulation for mental excellence. There is at present no occasion whereby we are ever called upon to congregate on an extensive scale, for the purpose of mutual improvement, and whence we may receive an impetus for applying ourselves to useful studies. Is it then not desirable to unite in such a laudable pursuit, by which the bonds of fellow-

ship may be strengthened, the acquisition of knowledge promoted, and the sphere of our usefulness extended ?

With a view therefore to create in ourselves a determined and well regulated love of study, which will lead us to dive deeper than the mere surface of learning, and enable us to acquire a respectable knowledge on matters of general, and more especially, of local interest, we have thought it expedient to invite you to meet, in order to consider the proposal of establishing an institution which, in our humble opinion, is eminently calculated, not only to effect this great end, but likely to promote mutual good feeling and union—an object of no less importance. We cannot, of course, within the limits of a circular, give a detailed account of the plan we propose to lay before you, but allow us to state the following brief outline.

Such members of the proposed Society, as may be willing, should undertake to deliver at its meetings, written or verbal discourses, on subjects suited to their respective tastes, at such times as may be previously fixed by them with a view to their convenience, and to the degree of research and attention which the subjects may require ; and, if they should fail without satisfactory reasons, to fulfil their pledges, they will be liable to pay a pecuniary fine. The purpose of this circular is to call a general meeting, to consider the propriety of establishing the proposed institution, and to arrange the details.

It is at this general meeting, Gentlemen, that we most earnestly solicit your attendance. You must be well aware that the success of a public object, like the one we propose, must depend on the degree of cordial co-operation we may receive from the members of our community. We cannot believe that in such a cause, coldness will be manifested by any person that entertains the least regard for his own improvement, or breathes any love for his own country ; and we flatter ourselves with the hope, that we shall meet with your hearty support in a proposal, which none can look upon with indifference, unless lost to all sense of duty or sunk in apathy. Those who may, from circumstances, be unable to take an active share in our proceedings, can at least countenance the object by their presence, for which they may be assured of our thanks.

We have, through the kindness of Baboo Ramcomul Sen, Secretary to the Sanerit College, obtained permission to use the Sanerit College Hall for our meeting, where precisely at 7 o'clock P. M., on Monday, the 12th March next, we earnestly entreat and hope, that every one of you, Gentlemen, will have the goodness to try your best to be present.

TARINEY CHURN BANERJEE,
RAMGOPAUL GHOSE,
RANTONOO LAHORY,
TARA CHAND CHUKERBUTTEE,
RAJKRISHNA DAY.

Calcutta, February 20, 1838.

All honour be to the names of this little band of pioneers in the march of improvement. The Society numbered nearly two hundred members ; and many of the papers, preserved among its printed records, are documents of considerable interest. History, poetry, language, the social condition of various classes of the people, topography, metaphysics, a few popular topics connected with anatomy and physiology, and similar subjects, appear to have occupied the attention of these seekers after truth and knowledge.

It is interesting to trace among the writers, several, whose subsequent career has amply fulfilled the promise of their early performances. Among them were Krishna Mohun Banerjia, Rajnarain Dutt, Hurrochunder Ghose, Peary Chand Mittra, Gobind Chandra Sen, Kissory Chand Mittra, Gyanendro Mohun Tagore, Prosunno Koomar Mittra, and some others, with whose names we are not so familiar.

Most of the discourses were written in English ; a few appeared in Bengali. Several of them contain a large amount of information ; and a few possess some pretension to literary excellence. The best are among the earliest papers. The Society appears to have died of inanition in 1843. No attempt has ever been made to revive it ; and it must be ranked among the things that have been.

The published proceedings of the association, which forms the basis of these remarks, attribute to it the following origin. In November of last year, Dr. Mouat addressed a circular note to a few of the native gentlemen of Calcutta, known to entertain enlightened and liberal sentiments, requesting them to meet to consider the best means of bringing the educated natives of the city a little more together, for purposes of mutual improvement.

The meeting was held in the Medical College in December, when the promoter of the scheme explained his views, and resolutions were at once adopted to carry them into effect.

The educated community, which may be expected to support and profit by such an institution, is much larger than it was ten years since. The last decade has witnessed many striking and material advances in public opinion, upon subjects strongly opposed to native prejudices and habits. Native Christians are now entitled by law to all the privileges of their birth. Freedom of religious opinion and belief is firmly established. The education of females has extended to the higher and more influential classes of Hindu society. The opposition of even the most narrow-minded and orthodox of the old race of Pandits to the labours of the Missionary has dwindled down to a feeble and contemptible hostility.

A more suitable time could scarcely have been selected to organize an association for literary and scientific purposes. The new society has received the name of the late President of the Council of Education, and it would have been difficult to have found for it a fitter patronymic. The chief object of the eastern career of this enlightened individual was the mental and moral improvement of the natives of India. To this his time, his talents, the resources of his liberal income, and his

untiring zeal were devoted, with a steadfastness of purpose, a disregard of personal convenience, and a sincerity that have rarely been equalled in the career of philanthropy.

It is to be hoped that some one, among the many friends he left in England, will give to the world a lasting memorial of this eminent and excellent individual. His natural gifts were so rare, his knowledge in the most widely separated departments of literature and science so profound, and his heart so full of many of the purest and finest feelings which can adorn humanity, that a faithful picture of the course of such a man could not fail to be a valuable addition to the biographies of those, who have been ranked among the benefactors of their race.

To us, comparatively, little is known of his early career. He was the eldest son of the well-known historian of the siege of Gibraltar, Colonel John Drinkwater of Salford, by his wife Eleanor Congalton, through whom he inherited the estate of Balfour in Fife. His father was a highly gifted man, and of the stuff, which has produced some of England's greatest worthies. But, as in most other cases of remarkable men, he appears to have inherited his chief qualities and gifts from his mother. Her family had been known as an intellectual race for centuries. Their names are intimately associated with some of the most celebrated scenes of Scottish history, and their talents would appear to have descended in unbroken succession to their surviving representatives.

The early training of the subject of this brief notice was conducted with the rare skill and chastening influence of his pious and exemplary Mother, whose memory he cherished with all the ardour of his enthusiastic temperament. To this cause, doubtless, may be remotely traced his intense earnestness and fervent solicitude for the education of the Females of India. What more suitable or enduring monument of the deepest reverence could he have raised to the memory of one so worthy of being remembered, than his Female School? Upon family topics, he was somewhat reserved, and few in Calcutta acquired his confidence sufficiently to become acquainted with his thoughts and feelings upon those most sacred and interesting of all subjects to a man of pure heart, enlightened mind, and liberal sentiments. It was our good fortune to have heard him pour forth the sentiments of his soul—and deep and reverential they were—upon the debt of obligation he owed to his Mother; and, although we do not feel justified in repeating them, we were deeply impressed with the conviction, that her early counsels and affectionate solicitude exercised a most marked influence upon the whole of his career, and that,

to her latest moments in life, her wishes were his laws, her counsels his guide, and her approval his highest earthly reward.

Of his childhood, the place of his early education, and his history generally, until he became the fourth wrangler of Airey's year at Cambridge, we know nothing. That he was considered then a young man of the highest promise, we do, however, know. We have even been told, that, at one time, he was the favourite candidate for the highest academic honours of his year. To have held so distinguished a position, as that which he ultimately attained, in a year of considerable competition and distinction, is a proof of the extent and depth of his mathematical attainments. Shortly after this, he prepared for the Useful Knowledge Society, a brief and incomplete monograph on algebraical expressions, a treatise of considerable merit, exhibiting much originality, and a marked taste for mathematical research.

His eminence in this department of knowledge, and the keen relish which he was known, to the very last, to take in all matters connected with it, led to the belief of his entertaining an undue preference for pure and mixed mathematics in the scheme of studies pursued in the Government colleges, and of his compelling an amount of attention to them that was injurious to the equally (if not more) important department of literature, using the term in its most extended sense.

The best answer that can be given to such a charge, is contained in his exposition of his sentiments on the subject, when last addressing the students of the Kishnaghur College :—

It has been frequently said of late, either ignorantly or maliciously, but at all events very untruly, that for some years an undue preference has been given in our colleges to the study of science, in discouragement of literature; and this has been attributed to my personal predilection for that branch of knowledge. It may not, therefore, be useless to explain my views, of the function, which such studies are meant to fulfil: because the remarks, to which I allude, though crude and shallow, have been extensively circulated; and, if left wholly unanswered, may give rise to misapprehension among the real friends of education in this country.

The study of foreign languages has ever been a favourite pursuit in almost every celebrated place of education in modern Europe: and those, who are opposed to the particular system of our English schools and colleges, have found ample ground for attack in the inordinate time which, according to their views, is wasted in mastering the difficulties of two dead languages, Greek and Latin. The moderate defenders of that system, admitting that some changes in the plan of study might be desirable, have grounded their defence, not only on the fact that the study of these powerful and elegant languages purifies and elevates the taste and genius of those, who become familiar with the masterpieces of poetry, oratory and historical narrative, which are enshrined in their literature, but also on this,

that the difficulty of mastering the artificial subtlety of their construction, affords an excellent mental discipline for preparing a young student for the acquisition of any other kind of knowledge which he desires. But they do not supply all that is needed. Assuredly, it would not be to them, that we should resort for a code of ethics, or of moral and political philosophy : for the minds, which should be filled only with the precepts of the master-spirits of antiquity on such topics, would possess, at least, as much of error and positive falsehood as of truth, however harmonious and concisely elegant might be its embodied expression. The founders of these institutions, therefore, feeling that the human intellect is never more nobly or more profitably employed than in the search after truth, would have thought their schools very imperfectly endowed, if they had not made some special provision for training the minds of their pupils for entering upon that study. In the colleges of this country, the principle is the same, though the details are different. The English language here supplies the place, which is filled in England by the Latin and Greek : inferior for the purposes of education in some respects, far superior to them in others. I do not consider it an overstrained assertion, that those languages do not surpass English in majesty and power of diction, more than English is superior to them in the real intrinsic value of the knowledge that is to be gained by studying the works of the best classical authors in each. The want, therefore, to which I have referred, is not quite so great for the Hindu student of English, as for the English student of Greek ; yet still, even here something more is needed : some branch of study, on which the attention of the learner shall be fixed exclusively, or almost exclusively, on the truth taught, and little, or not at all, on the form of the vehicle through which it is conveyed.

There are three subjects of science, which have been prominently put forward for accomplishing this purpose, each of which is preferably cultivated at one of three famous British universities. Without meaning to allege of any of them, that its attention is exclusively devoted to its favourite science, I may say that the study of logic has met with most favour at Oxford, metaphysics at Edinburgh, and physics, by which term I include mathematics and natural philosophy, at my own university of Cambridge.

The advocates of logic, by which is meant the science of pure reasoning, without reference to the subjects of its propositions, seem to consider that they have established their claim to preference, when they find that their assertion cannot be denied, that no legitimate reasoning can be carried on, which in any way sins against the rules which it formally teaches.

There is, however, another question behind, whether most of those rules are not elaborate and complicated expressions for elementary and almost intuitive truths. I frankly own that, notwithstanding the contrary opinion of some eminent persons, I have never been able to bring myself to attach much value to the study of logic as a formal science, at least as usually taught : and I believe that all in it, that is of any practical use, is learned with much greater facility by every mathematical student, who has advanced as far as to understand the doctrine of simple algebraical equations ; and that as soon as he has mastered the tolerably obvious principle, that he must be careful not to change the meaning of his symbols in the course of his investigations, he is as safe from being misled by the usual fallacies that are put forward in treatises on logic as exercises in the art, as if he had been regularly trained to discourse of an illicit process of the minor, or an undistributed middle term. Dr. Whateley's treatise is, I believe, considered a text-book on this subject : and at the end of it, he has

given more than an hundred examples of propositions, which may be taken fairly enough as tests of the value of all the precepts that precede them. I took the trouble to read them through lately ; and I own that I should be grievously disappointed, if any of those, whom I see in the front benches before me, would find much difficulty in distinguishing, on the first perusal, which are true and which are false inferences among them ; though, probably, there are few, if any, who can use the received logical phraseology in describing the process by which he arrived at his conviction in each case.

Ménage, probably, meant nothing more than a lively joke, when he defined logic to be " the art of talking unintelligibly of things of which we are ignorant ;" * for to take this sarcasm seriously, would imply a complete misapprehension of the objects of the science : nevertheless, it is not denied by any, who are acquainted with the history of philosophy in Europe—it is indeed admitted by the friends of formal logic, though of course they seek to avoid the inference drawn from their admission—that men never reasoned worse than when the science of formal reasoning was in greatest vogue and reputation. I have been informed that the Hindus possess a Sanscrit form of the same science, which does not appear to have been more fortunate as an improver of the reasoning faculty in man, than its European brother.

The study of metaphysics—which term I do not now use in the extensive sense given to it by some German philosophers, according to whom it seems to include almost every possible branch of human knowledge,—but with the more confined and yet still sufficiently wide meaning of the study of the laws of human perceptions, thoughts and feelings—is most interesting and important : but the vagueness of it, still more than the difficulty, renders it in my opinion ill-suited for the purpose which I now have in view. The real progress that has been made in it, is very slight, and the primary truths, on which its conclusions must be made to rest, cannot be exhibited, as it were experimentally and objectively, by the teacher. He is forced to call on his pupils to exercise a process of self-examination, in order to understand and assent to his theory, which even highly cultivated minds find difficult to sustain long, and which pre-supposes a considerable amount of mental training in the minds of its recipients. There is also considerable danger, from the very nature of the ideas with which this science is conversant, that it should foster a tendency to dreamy barren speculation, which I believe to be a prevalent intellectual vice of the inhabitants of this country. The remoteness and indistinctness of its images do not supply that healthy corrective which is needed for a people, whose philosophy has much in it everywhere which is cognate to their old cosmical theory, explaining the stability of the earth by supposing it supported by an elephant, the elephant upon a tortoise, and the tortoise they know not upon what ; and so considering the difficulty disposed of, when removed two steps farther out of the reach of sense and observation.

Now mathematics and natural philosophy, when rightly taught, are exactly and excellently well calculated to supply this defect.

Through the hard dry incontestable truths of elementary arithmetic and geometry, founded upon our simplest conceptions of number and form, we are able to give good practical lessons in the art, if not in the science, of logic : and this application of logical reasoning I believe to furnish a far better mental discipline than the formal science itself affords : and that there is an incalculable advantage in forcing the young student to perceive that there is such a thing as abstract truth, not in any way dependent upon

* Was not this rather his definition of Metaphysics ?—Ed.

the opinions and authority of his instructors, but derived from the very nature of the subject of his thoughts : and in accustoming him, when he has seized such truth, to follow it boldly and steadily into its remote consequences, as unassailable as the principles from which they are derived.

Accordingly, a favorite reproach against mathematical studies by those, who, it is charitable to think, have little knowledge of their nature, scope, and tendency, is that they make men too logical ; that the habit of strict reasoning, to which they become accustomed, unfits them for balancing probabilities, and weighing one kind of evidence against another—expertness in which makes a shrewd practical man of business. I apprehend this to be an utter mistake ; and the probability of its being so, seems, in some degree, supported by the great number of distinguished mathematicians, who have become acute lawyers, skilful physicians, and eminent statesmen. Besides, it is a complete misapprehension to suppose that the study of physics deals solely with certainties. Even in the purely mathematical branch, we have the elegant and abstruse theory of probabilities, specially concerned with those propositions only, of which we have only obscure and imperfect evidence ; and it may be questioned whether the wit of man ever produced anything more admirably subtle than Laplace's great work on this subject. But not to dwell on this, such objections surely overlook the application of mathematics to natural philosophy, in the pursuit of which many of the most valuable faculties of the mind are called into action ;—industry and acuteness of observation for collecting phenomena ; judgment in discriminating between appearances resembling, but not wholly identical with each other : invention for the discovery of crucial experiments, to test the merits of conflicting theories, and decide between them : while the powerful resources of mathematical calculation stand ever ready to the hand of the adept, to solve mere difficulties of intricate combination, like some mighty engine, by which a man can wield at will masses of matter far beyond his unassisted strength to lift ; and extricate from among the data of observation and experiment, the hidden consequences which lie too deeply buried in involved circumstances for undisciplined reason to discover.

To select one among the many beautiful applications of mathematical knowledge, what science can be thought more magnificent, or better suited to raise the intellect than astronomy ?

To those who have not painfully followed the successive steps of demonstration, each resting on what went before, and patiently built up from the most elementary propositions of Euclid to the sublime speculations of Newton and his followers, does it not appear little short of miraculous, that human sagacity, unaided by divine revelation, should have soared so far beyond the world in which mankind are placed, as to have detected the laws which link the whole visible creation into one mighty and stupendous system ? that the astronomer can predict with unerring skill the paths and motions of those points of starry light,—points of light to the ignorant, but rolling worlds to him,—so far removed from our sphere that many are even invisible to our sense, but for the assistance of wonderful instruments, which also are of his invention ? that he shews them wandering in their all but boundless career, obedient to the same universal law, which governs the motions of a ripe fruit or withered leaf falling at our feet ?

Let me bring this more vividly before you by illustration. Go with me in imagination, where I was a few years ago, in one of the busiest thoroughfares of London, the busiest city of the world, into the study of a philosopher, the late Francis Bailey, a stock broker by profession, but by taste and

genius a mathematician and an astronomer. How is he occupied? Great part of his room is filled with the framework of machinery, the object of which is to make massive globes of metal alternately approach and recede from a light pendulous body, hanging from the roof by a slight silken fibre. This he is carefully watching, and is diligently noting its vibrations through a small telescope from another corner of the room. Can you guess what he is about? These are the scales, with which he is weighing the mass of "this great globe which we inherit," and which this apparatus will enable him to ascertain with greater accuracy than you could arrive at, if you were to undertake to determine the weight of this building in which we are now assembled.

Now let me go to the most recent and most admirable triumph of mathematical skill. Look on this young student in Paris! He is unprovided with any telescope, or any mechanical apparatus; but the pen in his hand. Many volumes, however, lie open before him, in which he finds recorded the differences between the observed and computed places of the planets; and, carefully transcribing these, he appears buried in the most intricate calculations. What result has he obtained that makes his cheek flush with triumph? Let me attempt shortly to explain it to you. He has just completed an examination of the irregularities of the most distant planet then known to belong to our system. This remote body, be it observed by the way, was itself discovered to be a planet only some sixty or seventy years ago; and, since it is so distant from the sun, that its year is about as long as 84 of ours, it has not yet completed one revolution round the sun, since its real nature was discovered by the late Sir William Herschel. Yet, already, the path in which it ought to move according to the then state of our knowledge was so well known, by the application of the same general laws, on which innumerable previous verifications had led astronomers to place implicit reliance, that its deviations from the course they had by anticipation marked out for it, began to fill them with uneasiness. How are these irregularities to be accounted for?

It cannot surely be that, having reached the confines of our solar system, the laws, which we acknowledge, are faintly and imperfectly followed there, as might be the case in some distant province of a mighty empire. No: the laws, which the Great Architect of the Universe has impressed on His creation, are not as those of earthly potentates; they are kept and obeyed throughout His works. There must then be some cause, of which we have been hitherto ignorant, and of which, consequently, in our calculations, we have taken no account. We know that every visible planet exercises some influence on the motion of this distant one; for all these we have already made allowance. Can there be another planet beyond all which have been yet discovered, but the existence of which makes itself apparent to us by these unexplained irregularities of that which we have seen and measured? If so, where is it? what is its size? which way is it travelling, and with what velocity?

These are the questions this young French student has proposed to himself: and he feels that his science will enable him to find an answer to them. By a singular coincidence, the same daring exploit is tried almost at the same time, with some priority indeed, by another young man at Cambridge, Mr. Adams—each ignorant of what the other is doing, and each succeeding by his own independent processes of investigation. But let us return to Paris. I will not endeavour to explain to you the steps of the calculation: you will, probably, be satisfied by my assuring you that they are most intricate and laborious. But the work is done: the results

are beginning to appear ; and at last M. Leverrier is able to say, with the confidence of consummate skill, "Yes : I have found it ! There is such a planet. Human eye has never yet looked on it, with the true appreciation of its nature ; but it has been walking its appointed round from immemorial time : here is an account of its mass ; this is the direction in which it is moving ; this the point where, at this moment, if you will look for it, you will find it." All this the young astronomer, who himself has not yet seen this new world, except upon the paper of his elaborate calculations, dares to announce to a friend at Berlin, better furnished than himself with the means of making the actual observation. A new celestial Atlas is then in course of publication in Prussia ; and, by a happy chance, the sheet has just issued from the press, which exhibits that portion of the skies in which Leverrier has placed his unseen planet. This is eagerly compared with an old map ; and, almost exactly in the spot fixed on by the young Frenchman, a star is marked, not noted in the older map. The telescope is instantly turned to it ; and the discovery is complete ; the planet is there ! Surely, it is not without reason that one of our poets has said—

"An undevout astronomer is mad !"

and, when he uttered that sentiment, I believe that his mind was not more filled with the thought of the Almighty power, by which these worlds, scattered through infinite space, are bound to follow the laws which their Creator has imposed on them, than with the reflection that the same God who made this mighty universe, made also the intellect of man ; instilled into him the wish, and endowed him with the power, to look with intelligent admiration on his Maker's works. I know not how others may feel ; but, for my part, I can hardly conceive any other study better calculated to lead to serious and improving thought. What am I, in the midst of these marvellous works, which I am permitted to observe, and partly to understand ? Why am I here ? What is the fittest and best use I can make of those powers, of which I feel myself to be possessed, while my own consciousness, not less than my helplessness and insignificance among these majestic wonders, the mere contemplation of which almost appals and overpowers my imagination, is sufficient proof that I have them not of my own will ; and, if so, that I shall probably be made responsible for their being rightly employed to Him who gave them. If these evidences are worth any thing, it is only to mathematicians that they can appear in their full force. Others indeed may receive and repeat at second hand, whatever they please to believe of them ; but the conviction which belongs to the perception of demonstrated truth must be wanting.

It is in this spirit I would have the study of mathematics pursued in our colleges. First, I should wish to see them cultivated, in their abstract form, as far as is necessary to furnish rules and exercises in the art of reasoning : for which purpose I may say, by the way, that, on the whole, I consider objective geometrical processes, as far as they can go, much more useful than dealing with the more compendious and more powerful formulas of algebraical analysis ; and secondly, I would have the mathematical knowledge, so acquired, brought to bear upon the physical sciences, which together make up a knowledge of the material world by which we are surrounded ; and the more complete is the view we thus obtain of its wondrous and consistent structure, of the obvious adaptation of means to an end, and of the excellent perfection of the means employed, the more constrained shall we become to feel and utter, not only the old

maxim that knowledge is power ; but also that knowledge is humility—that knowledge is awe—that knowledge is adoration !

The quotation is a very long one, and we had some misgivings regarding its introduction : but it is so stamped with the peculiar genius of Mr. Bethune's mind, and forms, in itself, so elegant an essay upon the subject of which it treats, that we are sure our readers will not quarrel with us for giving it a greater degree of permanency, than it obtained in the ephemeral form in which it was originally published.

It is rare to find high scientific acquirements united to an extended knowledge of literature and languages ; yet such, in an eminent degree, was the case with Mr. Bethune. His acquaintance with the languages and literature of Greece and Rome was by no means of an ordinary or superficial kind ; and to it he added a perfect mastery of the three most important modern languages of Europe—French, German, and Italian. All of these he spoke and wrote with facility and correctness ; and he had studied carefully the better parts of their literature.

Few possessed so elegant and critical a knowledge of English, as he did. His memory was wonderfully retentive ; his taste chaste and refined ; and his studies had embraced nearly every department of English literature. His knowledge of Chaucer, Spenser, Shakespeare, and the early English poets, was as complete and perfect as it is possible to imagine. He was unusually well read in the writers of the Elizabethan age, and a staunch admirer of the massive Saxon-English of that period. In all cases, and at all times, he preferred a Saxon term to any word derived from the other sources which have enriched modern English.

His chief literary performances are the lives of Galileo and Kepler, published in the biographical series of the Society for the Diffusion of Useful Knowledge, and a volume of poems translated from the Swedish and German.

The prose compositions were produced shortly after he left Cambridge.

The memoir of Galileo is a masterly performance, and has ever since been a standard authority regarding the deeply interesting period of which it treats. It could only have been written by a learned scholar, and a proficient in the abstract sciences, as its composition necessitated laborious researches in Latin, Italian, French, and German—many of the documents consulted existing only in the magnificent collections of manuscripts of Florence, Venice, and Rome. The history of astronomy, of the scientific discoveries of Galileo and Kepler, and of

the laws of the motions of the planets, with similar matters of profound interest connected with the immortal labours of those lights of science, required in their biographer an acquaintance with the higher branches of mathematics and physics, possessed by few.

His volume of verse consists of selections from the miscellaneous poems of Esaias Tegner, and Schiller's *Maid of Orleans*.

The former is a Scandinavian poet of much repute in his own country, some of whose works had previously been done into English. Mr. Bethune's versions are by no means devoid of merit, and are quite equal, if not superior, to those of Latham and Longfellow. They are scarcely, however, of such an order, as to entitle him to the same high standing as a poet, which is fairly his due as a prose writer of purity and vigour.

The *Maid of Orleans* is, to our taste, the best version of one of Schiller's most beautiful dramas, that we have met with in an English garb. The first edition was printed for private circulation in 1835, and was the earliest form in which it was presented to the English reader in his own tongue. The latest edition bears the date of 1848, and is preceded by a lengthened preface, explaining the circumstances in which the translation was undertaken, and giving a critical account of the other English versions which had appeared in the interval.

For some years before he came to India, Mr. Bethune held the highly important office of Parliamentary Counsel, and was employed on some difficult Parliamentary commissions. The ability, with which he fulfilled the various tasks assigned to him, was the chief cause of his selection for the responsible post which brought him to this country, and which he held to the period of his death.

Upon his legal acquirements and political pretensions we are not qualified to form, or to express an opinion, that would be of any value or authority. That the former were worthy of his general reputation, we have the high authority of the learned Chief Justice of Bengal, in his address to the meeting convened shortly after his death.

The high order of moral courage displayed by him in fearlessly advocating measures known to be widely unpopular, and in bringing upon himself a larger share of vulgar and virulent vituperation than had ever previously disgraced the press of India, entitle him to the respect of even those who honestly differed from him in opinion.

We are, probably, too near the events to which we refer, to consider them dispassionately; but we are much mistaken if

the opinion of the next quarter of a century will not reverse entirely the judgment upon his measures, passed by the passions and prejudices of those who advocate the right of establishing different laws for different races.

Almost immediately after he landed in India, Mr. Bethune was appointed President of the Council of Education ; and of his claims, in that capacity to be considered one of the truest, most earnest, zealous, and single-hearted friends of the country, there has been no difference of opinion.

His accessibility to natives of all castes, classes, and ages ; his princely munificence in furthering all schemes intended for their improvement ; and the untiring devotion with which he pursued this great object, have endeared him to the whole nation, and placed him in the very first rank of its benefactors.

He will be chiefly remembered hereafter for the establishment of a Female School, in which the daughters of some of the most distinguished and influential members of Hindu Society first received the rudiments of education. The importance and moral influence of this event upon the future history of India, it is impossible to exaggerate : proportionate is the credit due to the philanthropy and public spirit of its author.*

He died on the 12th of August, 1851, in the fiftieth year of his age, deeply regretted, and was followed to the grave by an unusual concourse of European and Native mourners.

Such is a very imperfect memorial of the man, whose name lives in the Society recently instituted to promote the objects to which his life was devoted. One of the most graceful tributes the association could pay to his memory, would be to collect and publish his Indian speeches. They contain much that is well worthy of preservation, and breathe throughout a generous spirit of encouragement to the educated youths of the Presidency, that cannot be too deeply pondered over and studied by them.

Dr. Chuckerbutty's paper, the first read before the Society, is a useful and interesting performance ; and, although it contains nothing new upon the subject of sanitary reform, will cause the native inhabitants of the city to direct their attention to a matter of much immediate importance to them. The ventilation, drainage, habitations, food, and dress of the natives are briefly discussed ; and useful hints for remedying existing de-

* We can scarcely hope, that this noble Institution will be carried on with the same energy, and enthusiastic and munificent benevolence, which gave lustre to its beginning ; but it will be a national disgrace, if it is suffered to languish, or to die, by the Indian Government.—*Ed.*

fects are enunciated. In the soundness of many of his views we concur :—from some of them we differ, and regret that the length, to which this notice has already extended, prevents our discussing them in detail.

The most heterodox opinion advanced is the advice to his countrymen to discard their Oriental garb, and don "the scientific costume of Europe !"

Of all the innovations, which distempered fancy and perverted taste could possibly select, this is, without exception, the worst ; and, we sincerely hope, will never be accomplished. It is scarcely possible to imagine any thing more ungraceful, unbecoming, and destructive of freedom of movement, as well as symmetry of form, than the modern European dress—from the unsightly head-gear, for which Dr. Chuckerbutty assigned a quaint quasi-physiological reason, much at variance with the principle of construction of patent ventilating gossamers, to the various other articles of habiliment, in which the Caucasian races of the 19th century are encased.

It would not be difficult to find adequate protection for all the important organs of the body, from among the strictly eastern garments worn in different parts of Hindustan, without resorting to the unsuitable and inappropriate devices of the Billy Buttons of the Western Hemisphere.

Young Bengal is already sufficiently ridiculous in straps and tights. He would out-Bloomer the most outrageous of the tasteless innovators of recent times, were the predilection for tail-coats and alarming waistcoats to become epidemic, and the rising generation of Dutts and Sens, like the small tiger in "Punch," to "break out all over in buttons."

We need scarcely say that we sincerely wish the Bethune Society every success, and that we shall watch its future career with an interest commensurate with the important end it is intended to accomplish.

ART. VII.—*The Kavya Sangraha, edited by the Rev. Dr. Hauberlin.*

THE first literary efforts of a nation have almost invariably been stimulated by the fascinations of poetry. Sensibility and feeling have preceded the exercise of reason and reflection. The imagination has been worked upon, before the other intellectual powers were developed. Men saw the beauties and wonders of nature, and were charmed and electrified by what they saw, long before they could recover their self-possession, and coolly speculate on the laws, which regulated her course. Poets were thus brought forth much earlier than philosophers, or historians. Nature unfolded herself in her sublime and beautiful characters, and fired the spectator's imagination, long before the secret causes of her phenomena could be investigated. The glorious refulgence of the meridian sun was noted and admired, long before the spots on his disk betrayed his rotatory motion, or Newton demonstrated his central station. Many had been fascinated by the loveliness of the moon, which at night reigns full-orbed "And with more pleasing light, shadowy, sets off the face of things;"—long before, "through optic glass, the Tuscan artist" made his observations from the top of Fesole, or in Valdarno. The delicate scenery of groves and forests—the magnificence of hills, rivers, and cascades—must have struck the fancy in the rudest state of society. Sentiment would be thereby excited. Imagination would be set on fire. Love, joy, veneration, and other affections would be called forth: some might be captivated by the loveliness of the sights; some might admire the grandeur of the scenery; some wonder at the romance of what they saw; some again, of more serious temperament, might be led spontaneously to adore the power and wisdom which created such beauties, and adapted them to their several ends—thus adding usefulness to what was delightful; while others again, unable to look from nature up to nature's God, might attribute divinity to objects, which ministered pleasure to their admiring eyes, and supplied the necessities of life; without stopping to consider that they were but evidences of the excellency of the Supreme Divinity above.

Now, when the imagination is worked upon, and the feelings are well charged, the natural consequence is animated expression. The wonder, admiration, or veneration, excited by the scenery, would break forth in songs or hymns, which, as they proceeded from the seat of the affections, would breathe the genuine

sentiment then nearest to the speaker's heart;—AND THAT WAS POETRY.

But men, in a state of excitement, do not always articulate the language of common convention. The imagination rises superior to lexicons and grammars, and looks down upon their cold, calculating, and slow processes. The ideas, which are foremost in the mind, issue unrestrained by the artificial rules of Panini, or Amara Sinha. Hence the peculiar language of poetry and its variations from conventional usage.

But poetry is not wildness. It is independent of conventional rules, but it has rules of its own. It is free; but its freedom possesses a harmony, which no servile adherence to rules can impart. The genuine harmony of nature is superior to that of mere art. It is, perhaps, difficult to determine, whether poetry or music was first cultivated: but it is evident, that the one is intimately related to the other. Perhaps, they are twin-sisters. That which is musical, can hardly fail to be poetical; and that, which is poetical, must be musical. The inspiration of poesy determines what is harmony. Her flights are independent of earthly rules: she is not restrained by the aphorisms of prosodists and grammarians—any more than the planets are restrained in their career by Kepler's laws. The harmonious flights of poesy are naturally so regulated, as to give law to rhetoricians and grammarians. She is to them what the planets are to astronomers. They determine their code of rules by observing her motions—and that code is versification.

The foregoing remarks are nowhere more aptly illustrated, than in the case of Sanskrit poetry, by which, we mean, the poetry of the Brahmins. The first fruits of our ancient literature were produced by poetic inspiration. The ardent imagination of a tropical climate was naturally excited by curiosities, admired even by foreigners. The "barbaric pearl and gold," which the "gorgeous East" was supposed to "shower on her kings," had possessed the imagination of adventurers from time immemorial, and led ultimately to enterprizes, by which a new world was discovered, and which perfected our knowledge of the surface of our globe. The "barbaric pearl and gold" did not, it is true, actually abound in India, in the same plentiful manner in which they abounded in the imagination of poets and statesmen; but the beauty and magnificence, which invested nature in this favoured quarter of the globe, could not fail to strike the fancy of our ancestors from an early age. The majestic peaks of the Himalaya, prince of hills, surpassing the

clouds and towering to the heavens ; the sublime descent of the Ganges, fabled as the response to pious prayers made consecutively for several generations, and still the theme of pilgrims and devout travellers ; the lovely valleys, the ever green fields, the stately forests, the charming brooks, the gay peacocks, the warbling birds, the humming bee, the jessamine, the lily, and the lotus ;

“ Woods, fountains, hillocks, dales and bowers,”—

produced irresistible impressions on the poet's mind, and added fuel to his ardent imagination. The spirit of poetry was stirred up. Men spake and wrote with animation. They produced new ideas, and expressed them in thrilling but harmonious language. The rich variety of their turns of thought and their harmonious notes abundantly supplied materials for rhetoric and versification.

It is no small honour to the poetic genius of our ancestors, that it originally displayed itself by means of ideas, which were of a solemn and serious nature. It is a libel against human nature to suppose that there can be no true poetry, without condescending to frivolous levities or vulgar gaiety. The sublimer the subject, the more exalted is the nature of the poem, however more difficult may be the execution. It is a mistake to suppose that subjects of a serious nature cannot give sufficient exercise to poetical imagination. The first strides of Hindu poetry were heavenward. It displayed itself in what may be called hymns, or sacred songs. The Sanhitas of the Vedas are its oldest specimens. They testify to the existence of minds, capable of admiring the wonders of the creation, and labouring for communion with objects, to which were attributed the harmony and regularity of nature's laws. The Rishis celebrated the praises of Agni, Vayu, Rudra and others. They invited them to partake of their sacrifices and their moon-plant juice. They sang to them doxologies, invoked their favour, deprecated their wrath. With the theology involved in the Sanhitas, we have no concern in this place. Our business on the present occasion is with their poetry ; and that was chaste and delicate. You see no extraordinary flights in them. Their poetry does not “ soar above the Aonian mount.” And yet it has beauties, such as the first efforts of few nations can boast.

The versification of the Vedas is as simple as its poetry is chaste. The metres Gyatri, Anustupa, and Arya, are the most generally used. The collocation of words is an important element in Sanscrit poetry. The harmony of the Vedas is proverbial. Perhaps, in these days, we have no knowledge of the musical accents, in which the ancient Rishis chanted the Suktas : but the

glowing descriptions, given in the Puranas and other writings, of the harmonious reading of the Vedas, excelling in sweetness the warbling of birds, shew that the Suktas were capable of the most beautiful chanting. And this idea receives confirmation from the fact, that the scholiasts of the Vedas have been most careful in noting the metres, along with the gods and Rishis, of the several hymns. The gods were the persons addressed in the hymns; the Rishis were the persons addressing them; the metres indicated their versification. The names of these were inscribed on the hymns, in the same manner, in which some of the psalms of David have the name of the psalmist, and the instrument to which they were sung, noted on them.

The age of the Vedas was, no doubt, the first epoch of Sanscrit poetry. The second, it is no easy task to determine. Did the Tantras, technically called the Agama, follow the Nigama, or the Vedas? Or did Menu and the authors of the several Sanhitas of the Smriti, such as Vrihaspati, Harita, &c., intervene between them? When were the Mahabharata and Ramayana composed? And when the oldest of the Puranas? Oriental scholars have generally theorized on these points; but we must confess, we cannot follow out their reasonings. We do not propose to meddle in this article with archæology, or chronology. As far as the poetry of these writings is concerned, there is so much of similarity in them, that we may classify the Tantras, the Smriti, the Itihases, and the Puranas together, as the products of the second epoch of Sanscrit poetry. This necessarily embraces a long period of time; but the poetry it produced is, in some respects, uniform.

Considering the artificial decorations, and the puerile puzzles, which poets subsequently incorporated in their productions, one is tempted to say of Sanscrit poetry, what the poet predicated of the world:—

“Aurea prima sata est actas.”

“The golden age was produced first.” Succeeding poets imbibed a vicious taste for enigmas, alliterations, and for extravagant metaphors, which indicated a total departure from the simplicity of nature, and a vain hankering for art and effect. But this evil was not developed in the second epoch of poetry. The Tantras, Smritis, Itihases and Puranas, are generally free from mechanical decorations and enigmatical puzzles. Indeed, it may be said that the works just cited set off the Sanscrit language to the best advantage. Though not free from admixtures of artificial and affected embellishment, they

contain exquisitely fine poetry. The Tantras may be called catechetical instructions, given by Siva to his wife Parvati, and embrace a great variety of subjects. Some of them are evidently of recent composition. There are passages in them, which refer to the rise of the British power in the east. Others have been supposed to be of very ancient date. As dialogues between an uxorious husband and his wife, they might be supposed to contain many touches of sentiment: but Siva appears in the Tantras, more as an instructor than as a husband. In some parts of the Tantras, the persuasive powers of poetry have been prostituted for the inculcation of the most flagitious vices, exceeding by far the obscenities of the ancient Bacchanalia.

The institutes of Menu and the Sanhitas of the Smriti, may be considered as ethical compositions, declaring the duties of the various classes of Hindu society, and comprising the authorities of Hindu law. The nature of the subjects would allow but little of poetry; but they are composed very harmoniously in the metre called Anustupa; and, unlike, perhaps, works on law in other languages, supply very pleasant reading to the votaries of Themis. But poetry and law do not easily coalesce. Their union degenerates into an unequal yoke, which exercises a deteriorating influence on both. Legal poems are but poor offerings to the poetic muse; and poetical laws are unworthy of the altar of Themis. Law requires an exactitude of definition and a nicety of distinction, which are inconsistent with the freedom of poetry. And poetry requires flights of the imagination, which the cold calculations of law would not allow. The union of the two has a tendency to make poetry servile, and law flighty. This appears to be a fundamental defect in Hindu philosophy and Hindu law. It has been remarked, by experienced lawyers, that Hindu authorities might furnish texts for the support of the most opposite judgments in law. This could hardly be otherwise, where the law is poetry.

The Ramayana and Mahabharata are epic poems—the one on the life and adventures of Rama—the other having Judhishthira and the Pandavas as its heroes. But they are so full of episodes, that the reader constantly loses sight of the heroes of the poems, and feels himself perfectly puzzled, by interlocutors after interlocutors;—so that it is a task of no small difficulty to return to the point, where the digressions commenced.

The Ramayana appears to be the older of the two poems. The sweetness of its versification, and the delicacy of its poetry, are thus attested by some former editor, who, after saluting

Rama, the hero of the poem, has prefixed the following eulogy on the poet himself :

রাম রামেতি রামেতি কুজন্তং মধুরাক্ষরং ।

আকট কবিতাশাখং বন্দে বাল্মীকি কোকিলং ॥

I salute the Kokila, Valmiki, who, having climbed on the branch of poesy, is uttering the sweet sounds, Rama, Rama, Rama !

The characters of Rama, and his brothers Lakshana and Bhatarā, as well as of his consort Sita, have been pourtrayed in the most exquisite manner. In Rama we see an obedient son, a valiant and a noble prince, a loving husband, and a heroic and patient sufferer—one that always sacrificed pleasure and interest to duty and virtue. On the eve of being associated as king with his father, he is desired to leave the kingdom and banish himself for fourteen years to the wilderness. He executes the severe sentence on himself, and becomes an exile with the utmost alacrity. While in exile, subsisting on the bounty of such eremites as he found in the woods, or living on the wild produce of the forests, perhaps, also, on such game as his bow and arrows could procure, the honor and dignity of a high-born prince never forsake him for a moment. The rude hands of a savage deprive him, for a time, of the society of his faithful and affectionate consort, who had followed him in his exile. Severe as this calamity was—rendered ten times more provoking by the wickedness which brought it on—it distressed, but could not overcome the heroic sufferer; and the war, which the crimes of Ravana rendered inevitable, was conducted in the most honourable and princely manner.

The characters of Bharata and Lakshana are no less exemplary. The former, though called to the government by his expiring father, would not supersede an elder brother. He pursues Rama in the wilderness, and insists on his undertaking the duty which devolved upon him from his seniority. Rama cannot be persuaded to return to the kingdom against the express injunction of his late father. Bharata then determines to act as regent in his brother's name, and receives his sandals to be placed on the throne as his representative.

Lakshana is a beautiful personification of fraternal attachment, voluntarily sharing the misfortunes of a fond brother, alleviating his sufferings by sympathy, and instant in season and out of season to serve him. It reminds us of the sacred adage ; *How good and how pleasant it is for brethren to dwell together in unity !*

In Sita we have a picture of the faithful and affectionate wife,

determined to follow her husband's fortunes, unmindful of troubles and inconvenience, and cherishing his recollections in the midst of difficulty and captivity.

The characters of Hanuman and the other monkeys are somewhat mysterious. It is not easy to conjecture why the poet should introduce a quadrumanous general to assist in the restoration of Sita, and to fight the battles of Rama. Did he mean to anticipate Lord Monboddó, in his theory of the original formation of man?

The Mahabharata may be called a monster-poem. It engrosses all subjects. But the fortunes of Yudhishthira and his brothers form its principal burden. Krishna is its god; and the five Pandavas are its heroes. It commences with celebrating the greatness of Krishna, the truthfulness of the Pandavas, and the wickedness of the sons of Dhritarastra :

বাহুদেবস্ত্র.মহাত্ম্যং পাণ্ডবানাম্ সত্যতাম্ ।

দুৰ্বৃত্তং ধাতরাষ্ট্রাণা মুক্তবান্ ভগবান্ ঋষিঃ ॥

The work professes to have been addressed to king Janamejoy, a descendant of the Pandavas, and was evidently written to find favour with the party that proved victorious on the plains of Kuruk-shetra. In this respect, the courtly poet of Janamejoy was not unlike those of the Augustan age of Rome, so zealous in celebrating the praises of Cæsar.

But our poet's narrative is exceedingly clogged; and the god and the heroes are often completely lost sight of in its lengthy episodes. The celebration of the merits of the victorious party gave the poet an opportunity of embodying, in one long work, the traditions which were popular in the country.

The main story of the poem may be told in a few words. Dhritarastra and Panda were brothers, sprung from a royal race of the lunar dynasty. The elder was incapacitated by blindness for governing the people, of whom by birth he was the rightful sovereign; the younger was carried off, after a short reign, by the rude hand of death, while yet in the vigour of life. Dhritarastra on this associated his nephew Yudhishthira in the government. But his son Duryodhana bore deadly enmity to his cousins, the Pandavas. It is a common saying among the Hindus that, when a kinsman turns a foe, he becomes the most implacable of enemies. Such was Duryodhana to his cousins. The most foul means were resorted to to take away their lives. Poison was administered;—and, that failing of the intended effect, the Pandavas were decoyed to a garden house, constructed of shell-lac, and there burnt to ashes—in the intention of their murderous

cousin. But they fortunately escaped, unknown to their relative. They passed sometime in disguise, and met with adventures the most romantic. They subsequently returned to their country and their kingdom; but Yudhishthira, though represented as a serious and grave character, had one great weakness. He was fond of gambling. His enemies attacked him on his weak side, and gradually got him to stake his wife, kingdom, and all, at a game, by losing which he was reduced to be a perfect beggar. His partner, or rather the common partner of all the Pandavas, was grossly insulted by Duryodhana and his party. The Pandavas were, at last, banished for a period—the last year of which they were to live unknown and unrecognized. They remained in a state of exile for the time allotted, and then came back to their country, to recover their lost kingdom. War was accordingly declared; and the cousins encountered one another on the plains of Kuruk-shetra. The battle ended in the death of Duryodhana and the restoration of the Pandavas to their kingdom. But they did not long enjoy their recovered dominion. They took disgust at the world and its vicissitudes, and repaired to the Himalaya. Thence they attempted to travel to heaven; but, with the exception of the eldest brother Yudhishthira, they all fell off in the way.

Simple as the story is, it is so clogged with episodes, that it requires no small effort of the mind to keep to the thread of the narrative. The episodes are however valuable, because of the legends and traditions preserved in them. The stories of the Deluge, of the romantic adventures of Nala and Damayanti, of Rama, of Sagar, of Kalayavana, of Bhagiratha, of the descent of the Ganges, &c., &c., are distinguished by many remarkable traits, some of them portrayed in exquisitely delicate colours. Nor is the great poem devoid of metaphysics and philosophy. The lecture of Krishna to Arjuna on the field of battle, celebrated by the title of the Bhagavat Gita, gives an accurate idea of the speculative genius of Hindu sages, and of the theories of Pantheism, to which they are all more or less prone.

The Puranas, though written in the style of epic poetry, do not magnify any particular hero; unless the gods, whose adoration they set forth, may be considered their heroes. The Puranas may be safely considered legendary documents, embodying the traditions of the country, and inculcating the doctrines and ceremonies held in reverence by the nation. Parts of them are highly poetical and perfectly moral, and all of them are valuable, as the most correct representations, we have, of Hindu society, on the establishment of Brahminical

supremacy. In a historical and chronological point of view, they are utterly contemptible—but, as records of the manners and customs of the ages in which they were written, they possess great authority. They are all written in a simple and intelligible style, the beauty of which depends more on the collocation of words and the arrangement of subjects, than on single high sounding phrases, and unnaturally wrought metaphors. One exception, however, must be noted. The Sri-Bhagavat, though classed among the Puranas, is of a different style and structure from all the rest. Its style is hard; its sense is obscure; its philosophy mystic. It has been, not without cogent reasons, supposed to be a modern composition, and attributed to the grammarian, Vopadeva.

The Kavyas, or the Sahitya, form the Third epoch of Sanscrit poetry. Indigenous scholars have appropriated the name of poetry (Kavya) to this last class of writings alone. There is more elaborate poetry, and a wider range of versification in them, than in the poems we have noted before. We will not presume to controvert the opinion of our masters in learning: but, notwithstanding the beauties of the Kavyas, we are tempted to exclaim:

“*De duro est ultima ferro ;*”

“The last age was of hard iron.” Hard it was in more senses than one. The charge so often brought against Oriental poetry, that it “offers little more than a brilliant confusion of florid diction,” is a libel as far as the poems of the second epoch are concerned; but may be sustained in many instances by the style and plot of the Kavyas. Exuberance of figure and ornament is what their authors delight in. Moderate flights do not satisfy their fancies. They disdain to think or speak as other men do. They labour to form images and ideas, at which the reader will gaze with gaping wonder, and clothe them in language which none but the initiated are likely to unravel.

The principal Kavyas are the Bhatti, the Naishadha, the Raghuvansa, the Magha, the Kumara Sambhava, the Bharabi, and others. To them may be added the minor poems, such as the Meghaduta, Retu Sanhara, Gitagobinda, and others. The principal Kavyas take up some stories from the poems of the 2nd epoch, and decorate them with new figures and ornaments. It is remarkable, that the Kavyas scarcely give a new cast to the stories they borrow. There is hardly an incident in them, which is not found in the original Myths; but they abound with new metaphors, sometimes over-strained with high-flown

ideas, and with the choicest, though, in some instances, much laboured, versification.

We have as yet said nothing of the Hindu drama. The invention of this art is ascribed to a sage named Bharata, not without the usual addition, that it was distilled from the Vedas, and communicated by divine revelation to the sage in question. The invention of the drama must, however, have been posterior to the formation of a regularly organized society. Men in a simple and pastoral state do not imbibe a relish for the theatre. The very erection of the *Nepathya*, or the dressing room, or vestry, and the *Rangabhumi*, or stage, indicates some advance in civilization. After society had made some strides, it would be strange, indeed, if a nation, abounding in wealth and luxuries, and speaking, or otherwise familiar with, the most refined language on the globe, were to forego the pleasures of the drama. The rich resources of Sanscrit grammar, the enchanting harmony of Sanscrit versification, the picturesqueness of Hindu actions, and the fine development of Hindu figures, would naturally create a taste for the drama. In point of plot, execution, and style, the dramatic works of the Hindus may challenge the admiration of all, who can appreciate this class of writings. Indeed Kalidasa has been compared by a scholar of no mean authority to the English Shakespeare; but such is our veneration for the great name just mentioned that we must not allow our national predilections to set even Kalidasa, the brightest luminary of Vicramiditya's age, in juxta position with Shakespeare. His knowledge of human nature, and acquaintance with all its circumstances and conditions, was a rare and peculiar talent. It is no disgrace to a nation not to produce a genius, which was a peculiar gift of Providence. We will not, therefore, pretend to liken the author of the *Sacantola* to the author of *Hamlet*, *Macbeth*, and *Othello*. But there is no other dramatic poet, as far as we know, whatever be his country or age, to whom Kalidasa must necessarily give precedence.

We have now, gentle reader, endeavoured to give you some idea of Sanscrit poetry; but the magnitude of the subject and our slender abilities and poor scholarship make us feel, what Kalidasa remarked of himself at the commencement of the *Raghuvansa*;—Where are the giants of Sanscrit poetry, and where are we, of little minds? We may, perhaps, expose ourselves to ridicule,

পাংশু লভ্যে ফলে মোহাদুহাঙ্ক বীমন ইব ।

“Like a dwarf vainly trying to reach at fruits, which are attainable only to a giant.”

The consecutive cultivation of poetry for, perhaps, three thousand years, from the age of the Vedas down to times very recent, has necessarily improved the taste and criticism of our countrymen. Our works on rhetoric and versification indicate a knowledge of harmony and an appreciation of beauty, peculiar to the Sanscrit language. The Greek hexameter appears puny before our Indra-bajra, our Soondery, our Ruchira, our Puspitāgra, our Malini, our Vasantatilaka, our Mandākrantā, and scores of others, which it would tire one to hear. The refined notions, which our rhetoricians have expressed in their criticisms on poetry—their ideas of excellencies and deficiencies—prove that our learned language has been highly finished and perfected.

Sentiment is in the estimation of our rhetoricians the *soul* of poetry. Mere sound or harmony will not come up to their standard; though the want of harmony would vitiate the most sentimental of poems. Sentiment is usually divided into *love, laughter, pity, anger, heroism, fear, disgust, wonder, veneration*. Every poem ought to excite one or other of these sentiments. But the poet is most easily tempted by the sentiment, which attaches one human being to another. It is, however, an honour to Sanscrit poetry, that wherever love goes astray, and breaks in under the bonds of conjugal fidelity, it is reprobated as *ব্রহ্মভঙ্গ*, or false sentiment. But we must confess, that our poets have not been particularly delicate in their representations of love. Words, phrases, and sentences have been strung together in the most fascinating metres, which cannot be uttered by those who can distinguish what is decent from what is indecent. But this is a reproach to which poets of all communities are subject, where females are not admitted into society. Poets are not likely to run riot, where they are restrained by the fear of being read by those, whose ears, the most unprincipled would be ashamed to pollute by unholy articulations. The existence of a female reading community would exercise the most purifying influence on the poetry of our nation. No one would have the baseness to compose or publish what is sure to offend the delicate sensibilities of those who represent the honor and purity of his own household.

The Sanscrit poets laboured under another disadvantage. They had no reading community beyond the Brahmanical colleges—no critics save themselves. The Sanscrit does not appear to have ever been a generally spoken language. It was understood by the privileged class alone. The poet's imagination could not be rectified by the castigation of public criticism.

Poems were sometimes recited at the courts of princes disposed to patronize literature; but even there the Brahmins were the only intelligent auditors. The Sanscrit poets were accordingly destitute of one great means of improving the taste and style of literary compositions.

The memory and erudition of the Brahmanical scholars themselves were in some instances perfectly wonderful. A certain king, it is said, once offered a high premium for any original poem, that might be produced and recited in his court. He entertained, at the same time, a number of scholars, who, if they ever heard a poem read but once, of whatever length, could repeat it word for word. Competitors for the royal premium were accordingly always disappointed, because of the learned courtiers denying the originality of their compositions, and pretending to be already familiar with them, by repeating the lines, word for word. One pandit, at last, more shrewd than the rest, composed a piece, which stated that the king's late father owed him (the author) one lakh of rupees, and contended, that, if the lines he read, were already known to the royal courtiers, no further proof could be demanded of the validity of the claim, and the debt must be liquidated. If the courtiers, again, knew nothing of the transaction, then the lines were original and should have the promised premium adjudged to them.

But here the question may be mooted, of what practical use can discussions of Sanscrit poetry be to us? There is little likelihood of the Sanscrit lyre being tuned again, or the Sanscrit stage re-opened by a second Valmiki or Kalidasa. The sun of Sanscrit literature has long passed its meridian—perhaps, is set, to rise no more.

But if the sun of Sanscrit poetry be already set to rise no more in its original form, there is no reason to suppose, that it may not rise a second time in a modified form. Few, perhaps, even of those who make Sanscrit their principal study, will venture to touch the strings on which Vyasa, Valmiki, and Kalidasa played so harmoniously. Many may, however, be stimulated by the recollections of the ancient harp of India, to cultivate the genius of poetry in their own vernacular language. It may be hopeless to distinguish one's self in the field of Sanscrit poetry; but the field of Vernacular poetry is wide open. Few, very few, have hitherto entered it; but it may afford honourable employment to hundreds that may possess the gift of poetry.

It is in the Vernacular field alone that the poets of Bengal can hope to distinguish themselves. There is little probability of their shining in Sanscrit. The English is, after all, a foreign

language; and, however largely we may cultivate it in Calcutta, its cultivation will always be limited in this country. And the best of critics have pronounced it as their deliberate judgment, that a poet labours under great disadvantages in a foreign language. We shall conclude this hastily written paper, by appending the concluding portion of an address on the cultivation of vernacular poetry, read recently at a literary society in the metropolis of British India :

“ And here I must bring to your recollections a fact, which, I am sure, will produce a solemn and a lasting impression on your minds. The learned and benevolent individual, whose life was lately sacrificed to his incessant labours for the improvement of our race and country, whose name graces the title under which we have met in this hall to-night, and whose memory still draws the tribute of a sigh or tear from our daughters and sisters, the late John Elliot Drinkwater Bethune, the educator of India's sons and daughters, was most anxious to patronize Vernacular poetry in Bengal. He advised all aspirants after poetic fame to turn their attention to the Bengali. One of the last acts contemplated by himself was the preparation, by means of a competent Bengali scholar, of a small volume of Vernacular poetry, as well for the use of his female school, as for educational institutions in general. And I now sit down, by asking the question, Is there no genius in our country to take up an object, which occupied the thoughts of that great man, during his last illness?”

NOTE.—This article formed the substance of an Essay, read at a meeting of the Bethune Society, by a distinguished Hindu gentleman, to whose pen the *Calcutta Review* has been formerly more than once indebted.—Ed.

ART. VIII.—*Trigonometrical Survey—India: Return to an order of the Hon'ble the House of Commons, dated 12th February, 1850, for returns "of full and detailed Reports of the extent and nature of the operations and expenditure connected with the Grand Trigonometrical Survey of India, and of the Grand Triangulation thereof, for the Measurements of the Arcs of the Meridian, from the year the first Base was measured to the latest date;" &c. &c. 1851.*

WE have been favoured with a copy of the report of Colonel Waugh, the Surveyor-General of India, which was drawn up in obedience to an order of the House of Commons, on the motion of our indefatigable friend, Mr. Joseph Hume, and ordered to be printed on the 15th of April last. This Blue Book, as the *Bombay Times* expresses it, is more like a lively article for a review than what we are generally accustomed to in publications of this nature; and, as it is a subject intimately connected with the prosperity of the country, and, we presume, of considerable interest to our readers, we shall endeavour to present them with a full abstract of the progress, that has hitherto been made in this magnificent national work.

In a very recent number of this journal,* we had occasion to speak of the survey operations, as now in force, under the Revenue Department; and we then alluded to the account of the great Trigonometrical Survey, which was given in one of our early numbers.† Those, who may have perused the latter article, will find the succinct and able report of Colonel Waugh's, on the progress and expense of this great geodetic undertaking—which, at the present time, extends from Cape Comorin to Thibet, and from the meridian of Calcutta to that of Peshawur—to afford such a popular description of the nature and extent of the operations, and the manner in which they have been achieved, as cannot fail to be both instructive and interesting.

We believe that there are very few persons, even in India, who have any notion whatever of what the Trigonometrical Survey really is, or what it does for geography or science: or who can comprehend what has been already done, and why it has not long since been brought to a conclusion.

* No. XXXI. September, 1851: Art. VIII.

† No. VII. September, 1845: Art. III.

We have even heard of men, who believed and argued that India might be trigonometrically covered in five years! To such persons we would commend the Report before us. It is evidently written for the million—or for members of Parliament, who may be supposed to require something not over-professional or scientific; and we venture to believe, that it will be the means of placing the question in a more practical and rational view before the public in general, than has ever yet been done. The results of the Trigonometrical Survey, on this side of India, are scarcely published to the world as yet; which may account for the uncertainty and ignorance, which prevail regarding its utility, and even its progress or existence; but from the details now published in the Report, it will be evident, that, independently of the contributions to science afforded, we are speedily about to derive immense benefit from an accession of geographical materials, all based on this operation, which will furnish maps of the very first order; and for the want of which, many may have had good cause to regret that this Survey, so inexplicable in its proceedings, and so apparently dilatory in its movements, did not take place years ago.

The Report—which, with its tabular statements, and appendix, occupies sixty-one folio pages—opens with an account of the commencement of the operations in 1801, under the superintendence of Colonel Lambton, who drew up his project for a trigonometrical survey across the Peninsula, immediately after the fall of Seringapatam. On the recommendation of the Duke of Wellington, and approval of Lord Clive, then Governor of Madras, this proposal was sanctioned by Government; and to the cordial support of the *Iron Duke*, the Trigonometrical Survey of India may be said to owe its origin. But we must allow the Report to speak for itself, and shew what the equipments were in those days, which were considered the *ne plus ultra* of perfection. In the account previously given in No. VII. of this *Review*, the instruments first employed, and the source from whence they were obtained, have been spoken of at considerable length; and the general principles and objects of a Trigonometrical Survey have been detailed so freely, that our present intention is to treat more of the executive results, and the present state of the operations, and the means by which they have been prosecuted so far.

The instruments, used in Colonel Lambton's operations, were a 36 inch theodolite, by Cary; an 18 inch repeating theodolite, by the same maker; a 5-foot zenith sector, by Ramsden; two steel chains, by the same maker; a standard brass scale, by Cary; and several small theodolites, by different makers, for minor purposes. These instruments were the finest that the

state of art, at the commencement of this century, could produce; but the great theodolite received an injury in the year 1808, while it was being hoisted to the summit of a lofty pagoda in Tanjore. This injury was repaired by Colonel Lambton himself; who, with the duties of astronomer and surveyor, had, throughout his operations, to combine those of a mathematical instrument-maker. In Europe great facilities exist for repairing and preserving instruments; but in judging of geodetical operations in India, more particularly in Colonel Lambton's time, allowances must be made for want of aid in every part of the work.

* * * * * * * *

It must also be borne in mind, that for a long period these operations were frequently interrupted by the disturbed political condition of the country, which was often the scene of warlike operations; for it was not until the Marquis of Hastings destroyed the Pindari confederacies in 1818, that the Peninsula and Dekhan settled down into repose. The mysterious character of the instruments and operations, as well as the planting of flags and signals, have always more or less awakened the apprehensions or excited the jealousy of the native princes; it requires, therefore, no ordinary tact, firmness, patience, and good nature on the part of the head of the department to conciliate good will.

Shortly after the commencement of his labours, Colonel Lambton was called on to demonstrate the utility of his work. It was asserted that surveys on an astronomical basis would be equally accurate, and more economical than geodetical operations. The futility of these views was ably exposed by the Colonel: and, being supported by the Astronomer Royal of the day, the Rev. N. Maskelyne, all open opposition was withdrawn; and even Major Rennell, who was the chief advocate of the astronomical basis, afterwards concurred in the trigonometrical system. As this view of the subject has been confirmed by the practical testimony of every nation in Europe, and the importance of trigonometrical operations is now universally admitted by all practical scientific men, as the only trustworthy basis for extensive national surveys, it is unnecessary to discuss the first principles any further in this place. They are only adverted to in illustration of the formidable prejudices the Trigonometrical Survey in India has all along had to contend with. The Honourable the Court of Directors, however, when once convinced of the important practical utility of the work, have ever since continued its firm and powerful supporters, and, in the words of the *Edinburgh Review*, "their liberal and enlarged views cannot be too highly commended."

With reference to the length of time occupied by Colonel Lambton's operations, it may be proper to remark that, in addition to the interruptions caused by the disturbed state of India, that officer's establishment was on the most circumscribed scale, and his arrangements were often thwarted by the Finance Committee at Madras. It required, indeed, all the powerful support of the Honourable Court of Directors, and of influential men in office in India, to keep the operations on foot, even on this limited scale. Amongst those most instrumental in furthering the great objects he had in view, were the Duke of Wellington, at that time Colonel Wellesley; Lord Clive; Mr. Josiah Webb, Chief Secretary; Lord William Bentinck; Mr. W. Petrie, Member of Council; Mr. Andrew Scott, First Judge of Appeal; Colonel Munro, Quartermaster-General; Sir Thomas Munro; Lords Minto and Hastings, and Mr. H. Russel, Resident of Hyderabad; from all of whom he received cordial support and sympathy in his arduous and useful undertaking.

Colonel Lambton remained at his post till his death, which occurred on

the 20th January, 1823, at the age of 70, at Hinghan Ghât, about 50 miles from the city of Nagpore in the Dekhan.

The best proofs of the soundness of these views, and for the advocacy of nothing short of a general trigonometrical system, were the facts established by Colonel Lambton's operations. An error, of no less a quantity than forty miles in the breadth of the Peninsula, as previously laid down astronomically in the way Major Rennell proposed, was detected. All the principal places in the old maps, fixed astronomically, were found considerably out of position;—Arcot being out 10 miles, and Hyderabad no less than 11 in latitude, and 32 in longitude. Although such errors could scarcely be committed in the present day, even with instruments within the reach of almost every amateur; still it sufficiently shews, that, for the survey of an enormous empire, the trigonometrical system is not only the most rigorous, but the most economical in the end. In addition to the manuscript general reports deposited at the India House, condensed accounts of the more scientific part of Colonel Lambton's labours have been published at various times in the Transactions of the Asiatic Society, and the Philosophical Transactions of the Royal Society.* The early portions only of his works were reviewed by the late Professor Playfair in 1813, in the 21st volume of the *Edinburgh Review*; and they have been pronounced by competent judges—so writes Colonel Waugh—to be equal to the best geodetical operations of those days:—

It would be impracticable to discuss the professional merits of those operations in a more succinct form than Colonel Lambton himself has done in his published statements, to which reference can be made by those desirous of possessing complete information regarding the character of his work. It only remains to notice the financial part of the question, viz., the extent of area triangulated, and its cost, which come more especially within the scope of this Report.

Colonel Lambton, between the years 1802 and 1815, covered the whole country as high as 18° of latitude, with a net-work of triangles, whereby the Peninsula was completed from Goa on the west to Masulipatam on the east, with all the interior country from Cape Comorin to the southern boundaries of the Nizam's and Mahratta territories. Subsequent to this achievement, the Great Arc triangulation was extended nearly to Takal Khera, in latitude $21^{\circ} 6'$. The greater part of the Nizam's eastern territories were triangulated by meridional series between the Kistnah and Godavery; and considerable progress was made in the longitudinal series from the Beder base towards

* Vide Transactions of the Asiatic Society, vol.	7,	pp. 312	—	337
Ditto	"	8	"	137
Ditto	"	10	"	291
Ditto	"	12	"	1
Ditto	"	12	"	—
Ditto	"	13	"	—
				127

Bombay. All these operations are described in minute detail in the volumes of the General Report at the India House.

The area, comprised by the whole of the operations prosecuted during the time Colonel Lambton was superintendent, aggregates 165,342 square miles, as shown in the accompanying statement, marked (C). The expense incurred amounted to 8,35,377 Company's rupees. Consequently, the rate at which the triangulations have been executed, averages Company's rupees 5-0-10, or less than 10 shillings per square mile, which cannot but be considered remarkably cheap,—more especially as this calculation includes the expense of Dr Voysey's geological researches.

From the circumstance of Colonel Lambton's operations having commenced in Southern India arises the great superiority of the maps of the Madras Presidency; the atlas sheets whereof, published by order of the Honourable East India Company, are nearly complete. This part of India was surveyed in detail upon the basis of Colonel Lambton's operations, and on a scale of one mile per inch, by the officers and sub-assistants trained at the military surveying schools. No complete record exists in this office of the cost of most of these surveys: but, judging from the analogous operations of the Hyderabad survey, the expense appears to have averaged about six Company's rupees, or less than 12s per square mile.

We now come to an important era in the survey of India, viz., the transfer of the control of its operations to the supreme Government of India, and the appointment of an assistant worthy of acting under such a man as Lambton, and eventually of becoming his successor. This resolution of the Marquis of Hastings, the Governor-General, who was impressed with a well-founded conviction of the importance and utility of the Trigonometrical Survey, was made known in a letter written by Lieut.-Colonel Young, Secretary to the Governor-General in the Military Department, and bears date the 25th October, 1817. This masterly State document is so well worth perusal, that we give it entire. It is seldom that we now meet with such liberal sentiments, or such statesmanlike views:—

It is well known to Government, that since the year 1801-2, Lieut.-Colonel Lambton, of His Majesty's 33rd Regiment, has been employed under the Presidency of Fort St. George, in a series of trigonometrical operations, instituted originally for the purposes of establishing, with perfect accuracy, certain important points in the geography of the Peninsula, and of ascertaining the length of a degree of the meridian in those latitudes. The success, with which that learned person's labours have been conducted, naturally led his employers to extend their views, and to desire that the Lieut.-Colonel's operations should gradually be expanded, so as to embrace nearly the whole south of India, and then be pushed progressively towards the north.

Those employers, it is needless to mention, are the Hon. Court of Directors. This magnificent work was projected, and is carried on under their particular auspices and magnificent patronage, in a manner befitting that dignified body: their perseverance in this grand enterprize is worthy of the splendid original design: and this single public act has raised the name of the English East India Company, in the eyes of the scientific world, to a level with those of the great sovereigns of Europe, who have been their only rivals in similar undertakings.

Independently of the benefits reaped by mathematical science from labours like Lieut.-Colonel Lambton's, in regard to the more accurate knowledge of the figure of the earth, as deduced from his measurements of an arc of the meridian—the most important practical advantages must obviously accrue from the prosecution of this Trigonometrical Survey on its present plan. There is no other solid basis, on which accurate geography can so well be founded. The primary triangles, thus spread over this vast country, establish almost beyond error a multitude of points; and the spaces comprehended within these, when filled up by the details of subordinate surveyors, will afford to the Lieut.-Colonel's employers, and, through their liberal communication, to the world, a map without a parallel, whether in relation to its accuracy, to its extensiveness, or to the unity of the effort, by which it will have been achieved. The importance, attached to such works by the economists and statesmen, as well as by the learned of Europe, is proved by the perseverance for so many years of England and France in similar undertakings. The Governor-General ventures to speak to this point with no ordinary confidence, because it came under his personal knowledge, when he had the honour of presiding over the Royal Ordnance department. Under the superintendence of that Board, and the patronage of His present Majesty, the great Trigonometrical Survey of Britain commenced above 30 years ago, under General Roy of the Royal Engineers; and it is continued unremittingly at the present day by Colonel Mudge, of the Royal Artillery. His Royal Highness the Commander-in-Chief, actuated by consideration for the magnitude and interesting nature of Lieut.-Colonel Lambton's parallel operations in India, has acceded to the wishes of the Hon. Company, by granting the Lieut. Colonel unlimited leave of absence, although his regiment has long since returned to England.

Such is the scale and character of this splendid undertaking. The great extent, to which the Trigonometrical Survey has now reached, appears to the Governor-General to indicate the time as having arrived, when expediency requires that it be taken under the direct and immediate control of the Supreme Government. His Lordship is persuaded, that its operations will henceforward be greatly facilitated by this measure; for they have already passed the British boundary into the territories of His Highness the Nizam, and, the Governor-General trusts, will now progressively advance into Hindústan and the east, until the net of triangles shall be woven over the whole continent of India. In the meantime, all those public British authorities, with whom, for obvious purposes, Lieut.-Colonel Lambton must now hold correspondence and intercourse, are under the sole order of the Governor-General in Council; and they will be enabled to give immediate attention to his wants and wishes in cases where otherwise a reference to the Governor-in-Council of Fort St. George (his immediate superior) must be followed by a further reference to Bengal. But, besides these considerations of convenience and facilitation, the Governor-General is of opinion that others of a higher nature lead to the same inference. His Lordship has no scruple in avowing his sentiments, that an undertaking of such national importance and general interest is only in its appropriate place, when drawn under the direct orders and countenance of the supreme authority in British India.

The Governor-General is not unaware, that, with minds of a certain order such a step as his Lordship purposes may be open to the idle imputation of vainly seeking to partake the gale of public favour and applause, which the labours of Lieut.-Colonel Lambton have recently attracted. To some it may possibly seem to savour of ostentation, that the direct countenance of the Supreme Government has been withheld until the moment when

the learned Societies of England and France, the first in the world, have borne illustrious testimony to the character of this Survey, and the merits of its conductor, by enrolling his name in the distinguished lists of their members. But the discerning candour of the superior authorities, who sit in judgment on the acts of the Governments in India, will lead them to a juster interpretation of the conduct of their servants. The analogy of the Governor-General's procedure to their own resolution in the parallel case of the General Survey Department will not escape the notice of the Honourable Court; they will mark the striking practical facilitation afforded to Colonel Lambton's operations by their transfer, at this period of progress, to the only authority politically connected with those countries within which the Survey has arrived; and, if it should appear that from more immediate contact with the Supreme Government, that even the smallest portion of additional encouragement, or of respectability in the eyes of the world, can be conferred on Lieut. Colonel Lambton, or his labours, the Governor-General is well assured that the transfer will be approved and applauded even on that single ground.

I am now therefore formally to communicate to the Honourable the Vice-President in Council the resolution of the Governor-General (in his absence from the seat of his Government), for effecting the transfer of the Trigonometrical Survey of India from under the presidency at Fort St. George, to the immediate direction and control of the Governor-General in Council of Fort William: the transfer to take effect from the 1st January, 1818. The Governor-General in furtherance of the determination has been pleased to direct, 1st. That from that date Lieut. Colonel Lambton, and all persons connected with the establishment of the Survey, shall be considered as under the sole control of the Supreme Government, and as belonging to the Bengal Establishment. 2nd. That the Survey be denominated the Great Trigonometrical Survey of India, and Lieut. Colonel Lambton the superintendent thereof. 3d. That all the salaries, allowances, gratuities, reversionary claims to recompense or pensionary support, and, generally, all right or reasonable privileges, which any of the persons now attached to the Survey possess from the Government of Fort St. George, shall be admitted in the fullest manner as binding on the Government of Bengal. 4th. That a duly qualified officer be appointed chief assistant to the superintendent, on a salary (besides the pay, full batta, gratuity and tent allowance of his regimental rank) of 600 sicca rupees, which is not to be subjected to deduction for any broken periods, that the Survey may not actually be employed in the field. 5th. That a person skilled in natural science, and capable of affording medical and surgical aid to the Survey establishment, be permanently attached to it as geologist and surgeon, on a salary of 600 sicca rupees. 6th. That the Trigonometrical Survey be considered wholly distinct from, and independent of, the Surveyor-General of India; but as this measure is adopted out of respect to the rank, talents and eminent services of the present superintendent, in the event of that officer ceasing to hold the direction of the Trigonometrical Survey, the Governor-General will consider this regulation as open to revision. 7th. That the whole expense of this Survey be considered a civil charge. 8th. That the Trigonometrical Survey be placed immediately under the public department, and that all reports, instructions or other correspondence regarding it be conducted through the Secretary to Government in that department. 9th. That all records, documents, plans, &c. connected with the Surveys, which may now be deposited at Fort St. George be removed to Bengal as soon as possible, when arrangements will be made for their reception and custody in the public department.

On these several provisions the Governor General does not conceive that it is necessary for him to make any particular remarks, except as to the 4th and 5th articles. His Lordship desires to observe on the 4th, that the intense mental and bodily labour of conducting the Trigonometrical Survey has been performed heretofore by Colonel Lambton alone, and, that the rank and the advancing age of that zealous and distinguished person now demand some relief from such severe fatigue. But, independently of the consideration so eminently due to the individual, the Governor-General is decidedly of opinion that the strongest reasons of public expediency exist for associating an assistant in this great employment. The mathematical qualifications for conducting such labours are of a very high order, and possessed by few in India. They require to have been kept up by habitual exercise; and moreover the extreme accuracy, indispensable in trigonometrical calculations on the scale of Colonel Lambton's undertaking, demands a dexterity in the use of the instruments, and a scrupulous degree of attention in what may be termed the practical part of the labour, which can scarcely be conceived by persons unaccustomed to it, and which is to be learnt only by a rigorous apprenticeship. The regretted time must one day arrive when Lieut. Colonel Lambton's task is to devolve on a successor. It would not be wise to trust to chance for producing one fully equal to the duty at the moment when he is wanted; neither is it right that this important Survey should thus hang on the life of a single individual. Lieut. Colonel Lambton himself has urged this point to the Governor-General, and has pressed on his Lordship the propriety of giving him an associate. The Governor-General therefore has selected for this office, Captain Everest, of the artillery, of whose eminent degree of science as a mathematician he is assured, and whose talents are known to the Vice President in Council both by his surveys in Java, under the Quarter-master General's department, and by his successful exertions as an engineer, in recently clearing the navigation of the Matabanga and other rivers. His Lordship purpose to grant Captain Everest a salary nearly similar to that of an ordinary land surveyor, or 600 rupees besides regimental allowances, to be considered, like all the other expenses of the Survey, a civil charge.

The selection of Captain Everest, as an associate with Lambton, and the reasons given in the above extract for so doing, must be acknowledged to have been peculiarly felicitous. The increasing age and infirmities of the Father of Indian Geodesy demanded, that some provision should be made for relieving him of at least some portion of the corporeal and mental fatigues necessarily attending on his situation: and, as the Governor-General expressed it, "it would not be wise to trust 'to chance for producing a successor fully equal to the duty 'at the moment when he is wanted, neither is it right that 'this important Survey should thus hang on the life of a 'single individual.'" Thus, for nearly five years, prior to Lambton's death, Everest had the advantage of a close intimacy with him: and, as remarked by Colonel Waugh, "to the mathematical acquirements, practical genius, and undaunted resolution of Colonel Everest, in contending against difficulties, is to be ascribed the high state of efficiency afterwards attained, and

‘now existing undiminished, in this hard-working establishment.’

The following extract shews the nature of Colonel Everest's labours up to the time of his departure for England :—

Captain Everest joined the Colonel, as chief assistant, in the latter end of 1818, and was employed, in the first instance, in the triangulation of the eastern parts of the Nizam's dominions ; where, in consequence of the extremely unhealthy character of the country, together with great exposure induced by indefatigable labour in the duties of the Survey, he twice fell a victim to jungle fever, and eventually was ordered to the Cape of Good Hope for the recovery of his health. While at the Cape, Captain Everest employed his leisure in investigating the circumstances appertaining to the Abbé de la Caillé's arc, which formed the subject of a valuable paper, published in the first volume of the *Astronomical Society's Transactions*.

On his return to duty, Captain Everest was deputed on a longitudinal series of the great triangles, emanating from the Beder base line, and intended to connect Bombay. He was engaged on this important work at the time of Colonel Lambton's death ; by which event he succeeded to the office of superintendent, and immediately proceeded to concentrate the resources at his disposal for the extension of the Great Arc series. It would unduly lengthen this Report to recount all the formidable difficulties that were encountered : but notwithstanding the state of his health, which suffered severely from the insalubrity of the climate, and the unremitting labour of his professional duties, the measurement was at length carried to the latitude of 24° , when it was terminated by the Sironj base line.

An account of these operations is given in detail in the fifth and sixth volumes of the General Report, deposited at the India House. All the scientific portion, relating to the fifth section of the great Indian arc, was further published by order of the Honourable East India Company, in the year 1830.

After the termination of the Sironj base line, Captain Everest proceeded to England for the recovery of his health ; and, as there was no person in India competent to succeed him, the Supreme Government resolved to retain the situation of superintendent open until his return.

Notwithstanding the somewhat invidious allusion in the foregoing extract, that there was no person competent in India to succeed Colonel Everest, the determination of the Government to keep his appointment open for him during his stay in England, may be said to be a very flattering compliment—evinced the high opinion entertained of this officer's services and attainments by the home authorities, as well as by the Government of India ; and it doubtless tended to the eminent advantage of the operations : for we read subsequently of the manner in which the Colonel's time was spent in England, and what a stock of information and fresh experience, as well as of strength and vigour, he brought to bear on his duties when he returned.

What a comment on our existing furlough regulations ! Here is an admirable specimen of what might be the case in every

department of the public service, if the fatal meridian of the Cape of Good Hope did not still interpose, and say to every one, "Go and idle your time for two long years amongst the Africans, or the Australians, or Egyptians, or in any other desert place, where you have no friends, no interest, no common ideas; enjoy your pay and emoluments, and return to your appointment when you like;—but pass my threshold for only six months, and you forfeit *all*." When will this anomaly be removed from the statute-book? When will the Indian Government allow their servants to do, as Colonel Everest did—to go and benefit by the rapid progress of arts and sciences, and practical improvements in all things, which can only be seen, and understood in England? Let us hope that this reasonable boon to the servants of the State, and equally reasonable advantage to the State itself, may be secured on the passing of the Charter. But we are digressing.

We are told then, that during the interregnum caused by the absence of the superintendant, the establishment was usefully employed under a subordinate officer, Mr. Joseph Olliver, in extending a longitudinal series from the Sironj base line, in the Great Arc series, to connect Calcutta. This work was brought to a close in the year 1832, at the Calcutta base, having occupied a period of six years in accomplishing a direct distance of 671 miles, through a wild, desolate, and unhealthy tract of hill country, which presented formidable difficulties. The work, however, having been executed with instruments of a secondary order, its professional value is said to be only of a similar nature. It embraced an area of 33,442 square miles, with a total outlay of 1,30,740 rupees: the average rate of expenditure is, therefore, 3-14-6, or a little more than six shillings, per square mile, including the costs of measuring the Calcutta base line with Colonel Colby's apparatus—a result which cannot but be considered wonderfully cheap.

In the year 1824, some anxiety seems to have been felt as to the progress and probable duration of the Trigonometrical Survey: and the Court of Directors called for a Report on the subject, which was prepared by the late Colonel Valentine Blacker, at that time Surveyor-General of India, who is described as the ablest and most scientific man, with the exception of Colonel Everest, that ever presided over the department. This paper is so masterly and worthy of the subject treated of, that we give it entire, though at the risk of being somewhat verbose. The letter is addressed to the Secretary to the General Military Department, and dated the 11th August, 1824:—

I shall assume for granted, that a great trigonometrical triangulation,

corrected for spherical excess and the spheroidal figure of the earth, is the only accurate basis for the geography of any country ; because this point is acknowledged by all the first mathematicians in Europe ; and because, as well in England, as on the Continent, the same has been made, with more or less zeal and effect, the object of expensive operations by almost every Government in Christendom. In some states they have been completed, and in others partially accomplished, or only attempted, according to the exigencies of war, or peace, or the characters of individuals in the several Government. But their importance has been questioned by none ; and it therefore remains for decision with the ruling authorities of India, whether they will prosecute to accomplishment a princely undertaking, hitherto conducted with success, restrict its course to a less complete result, or discontinue it immediately.

Considerable time elapsed at its origin in procuring the instruments ; and some effect was lost in the gradual training of sub-assistants and followers attached, to comprehend and perform all those parts of the work, which did not belong to the immediate province of the superintendent himself. The commencement, therefore, including cost of instruments, was the most expensive part of the proceeding in proportion to the effect produced ; and, as that loss and inconvenience has been incurred, it appears impolitic to sacrifice all subsequent advantage derived from it, by an immediate or premature termination of the Survey.

It is extremely difficult to recommend any restriction of the great triangulation, short of that imposed by the features of the country and the limits of British control, so long as its operations are conducted with zeal and intelligence ; but, if such a suggestion were exacted, I should propose for limit the termination of the Doddagúnta meridional series of triangles in the Thibet mountains ; the continuation of the western series along the coast from Goa to Cambay ; and the prolongation of that on the eastern coast from Masulipatam to the nearest practical point to Fort William. From four to five years with the present establishment, would be the probable time necessary for the completion of the meridional arc ; which may justly be denominated the great axis of Indian geography, and would connect the minor surveys of the Deckhan with those of Hindustan, which are at present but vaguely related ; for the accomplishment of the other two, which would nearly complete a correct outline of India to the sea, and show the extent in longitude of the British possessions, about four years each would be required.

I cannot, however, too forcibly, as Surveyor-General of India, deprecate the adoption of a restriction so inconsistent with the liberal views under which this survey has been hitherto conducted ; so unworthy of the fame,* which the rulers of India have already acquired among scientific societies for their promotion of geodesy ; and so completely destructive of all hopes of an accurate knowledge of the geography of the greater part of Central India and all its extremities, excepting the Presidency of Madras and part of

* I beg leave to quote here an extract from the *Edinburgh Review*, vol. XXI., page 313.

Note.—They have sent out parties in all directions for the purpose of ascertaining the bearings and distances of the places, which compose or limit their extensive dominions. A late volume of the *Asiatic Researches* contains an account of the march of an officer, at the head of a detachment, into one of the most remote and unknown districts of India, for no other purpose, but to decide a question interesting only to philosophers, viz. Whether the Ganges rises within or without, that is, on the south or the north side of the great chain of Himalah, the Snowy Mountains, or the Immaus of the ancients ? There are but few of the most enlightened cabinets in Europe, which can boast of an expedition equally disinterested and meritorious.

the Deckhan and Konkan. Rather, on the contrary, let there be employed more hands and more instruments to give fresh vigour to the undertaking, and to reduce the period of its accomplishment within a calculable time, by the protection and facilities afforded to it.

I feel a difficulty in adding more in reply to the demand for precise information in regard to the objects embraced in the Survey, and the particular purposes to which it is to be applied, as it may respect the geography of the country. Without this basis, which is itself independent, all detailed surveys must not only be wrong, but extremely tedious in producing even erroneous results; no single point can be accurately placed, nor can the extent of India, particularly in longitude, be known without it. Such is the proneness of maps to exceed in that direction, that an error of 500 leagues was discovered by Gassendi in the length of the Mediterranean sea, and De Lisle shortened Asia from east to west more than 24 degrees. The King of France complained that Cassini's great triangulation had deprived him of a large portion of his dominions; and the late Lieut.-Colonel Lambton found the breadth of the Peninsula in the parallel of Madras some miles overrated by all the maps existing previously to his survey, notwithstanding the able and zealous labours of Messrs. Topping and Goldingham, to establish the longitudes of several points on both coasts by astronomical observations.

One of the great questions of general service, whose determination depends on the highest geodetic operations, is the ascertainment of the magnitude and figure* of the earth, through various measurements on different meridians, and under different parallels. The scientific world agree nearly among themselves now, although from different grounds, on the comparative lengths of the earth's axis and equatorial diameter, notwithstanding that no two meridians may be similar; and the latest observations in various latitudes on the lengths of the seconds pendulum (an expedient, which has been adopted as a substitute for geodetic operations, where the latter from sundry reasons are impracticable), have generally corroborated the conclusion deduced without its assistance. Lieut.-Colonel Lambton's operations have had their full share in the ascertainment of the earth's figure; and the prolongation of the Doddagúnta meridian to the Thibet mountains, at about the latitude of $31^{\circ} 30'$, will be of equal importance in clearing away remaining doubts, or throwing light on new phenomena. But in fact there is no branch of physical science specially affected by the three co-ordinates of latitude, longitude, and elevation, to which the great trigonometrical operations are not of primary importance; whilst the determination of the changes of gravity in different latitudes, the laws of terrestrial and celestial refraction, the attraction of mountains, the phenomena of magnetism and temperature, with several important branches of geology, should properly accompany or follow them.

I have now placed the question of the continuation of the Great Trigonometrical Survey in the most conspicuous light, which the limits I have assumed will permit. In pointing out the expedient for a complete accomplishment of this great desideratum, I have rejected the method hitherto followed of an uninterrupted triangulation, for that of several meridional series, which appears to me, if less satisfactory, to be a saving in time of 20 years; and, should the resumption of the former system be ever desired here-

* It may not be amiss here to notice that the figure of the earth is so far from being an object of mere curiosity, that it affects a large portion of the tables used by navigators, especially all those of which the moon's parallax is an element. No power has more reason, therefore, to be interested in this investigation, than the East India Company.

after, its execution will be advanced by the previous work, exactly in proportion to the ground covered. The next alternative comprises the completion of the Doddagunta meridian, and continuation of the series on each coast; and, if that be considered too extensive, the meridian may stand alone, whilst the survey of the coasts shall be abandoned.

From para. 50 to 54 relates to the memorandum received from Major Rennell, regarding "the best mode of obtaining a complete map of India within a reasonable time." The character of that distinguished geographer for talent, industry, and literature is so well established, that his opinions on the subject, to which so much of his attention has been successfully directed, claim immediate respect. But there is a distinction between geography and geodesy; and the latter is the object of the present inquiry. Notwithstanding, that Major Rennell's celebrity chiefly rests on the ingenious use and sagacious reasoning with which he has turned to account a variety of uncertain authorities, and that his Bengal atlas, although said to be founded on actual survey, depends neither on measured base or triangulation, as far as I have been able to ascertain, he is evidently aware that transcendent geodetic methods are now employed in Europe, however, he may have overlooked their latter progress in this country.

The mode at present suggested of insulated astronomical observations, and estimation of distance by time, was applicable to the limited influence of the British power half a century ago, and has since been occasionally practised by solitary and adventurous European travellers in the wilds of America. Not only have the grounds of accurate knowledge been extended over Southern India, but accurate surveys in detail have been erected on them. How irreconcilable, then, will be the inconsistencies of the proposed loose method with the results of science already accomplished—and how unworthy of the character, power, interests, and opportunities enjoyed by the Honorable Company, to return to such a rude expedient, after having originated and promoted, during more than 20 years, an operation approved by science, and after having received for their conduct the applause of the scientific of Europe? Were this all, perhaps, the arguments, powerful as they deserve to be considered, might fail of carrying conviction to every mind: but in fact the proposed experiment would be entirely nugatory. Incorrect throughout itself, it could form no correct ground for minor surveys; so that it must be either useless or baneful. Its erroneousness would be inconsistent with the scale of four miles to an inch, which always supposes, in a general map, accurate data; and if ever it were engraven in the proposed form, it could have no other fate than that of being thrown aside in vexation for the expense incurred and the misconceptions it produced, to make way for a new and accurate survey.

These observations apply to the proposal for substituting astronomical observations for high geodetic operations, and estimation of distance by time for actual measurement. If, on the other hand, the celestial observer be confined to those tracts, whose nature forbid the approach of the Great Trigonometrical Survey, much advantage may be derived from his labours. This benefit, however, must depend on a different principle of calculation from that to be inferred from Major Rennell's memorandum. No astronomical result is of value, unless it be more accurate than that which it proposes to correct; and the propriety of its adoption or rejection depends therefore on the local surveys supposed to follow or accompany it. An itinerary, corrected for the true azimuth, will not, in general, if conducted with moderate skill and attention, be in error more than two miles in 100, which is near the average distance proposed to separate any two points astronomically determined. The memorandum estimates at $2\frac{1}{2}$ to 3 years, the period requisite for the astronomer to merely travel over his ground; but no estimate

is made of the time necessary for making observations and calculations. This omission is the more to be regretted, as on the number of observations, as well as on the skill of the observer and excellence of his instruments, depends the value of the results. In a subsequent paragraph, it is added, that with five surveyors, three or four years would suffice to fill up all the localities; and that period, therefore, is probably considered at least sufficient, both for travelling and the determination of the 85 primary points, as they are intended to precede the operation in detail.

It would require more attention, than possibly I may be entitled to expect, to follow the reasoning necessary to show the fruitlessness of the proposed hurried observations. The distances in latitude of the local survey may be checked at considerable intervals by a good sextant in the hand; and many seasons of the year are favourable to observations of the sun or stars. But I should apprehend that no professed astronomer would be satisfied to hang his character on such a procedure, which is properly restricted to the purposes of navigation. No instrument but such as is too large for the hand, and must be adjusted by the plummet or spirit level, is capable of giving the latitude with sufficient accuracy to render the result worthy of a professional astronomer and assistant, or adequate to the expense of his establishment; * and this instrument, whether a zenith sector, or an altitude circle, requires time and patience for its adjustment, previous to any observation. This delay, added to the occasional want of proper stars sufficiently high during all hours of the night, will render evident the necessity of continuing much longer at one station for latitude alone, than could have possibly been anticipated by the memorandum, which avoids any explanation on this subject. Mr Biot did not think 1,400 observations for latitude unnecessarily numerous, when ascertaining the length of the seconds pendulum at Unst, a few years ago; which, I hope, will be sufficient to show the opinion of the scientific, respecting the difficulty of ascertaining that element with the precision suitable to professional observations on shore †.

But if the determination of the latitude requires so much time and care, what shall be said regarding the still more important element of longitude, which involves the errors of tables, the rarity of phenomena, the inaccuracies of the time-keeper, the uncertainty of the method, the delay and mistakes in operose calculations? The rate of the time-keeper requires the most attentive vigilance; so much so, that the French astronomer, on the occasion above mentioned, thought it necessary in two months to observe 1,200 absolute altitudes of the sun and stars, to regulate his clock.

* A good sextant, in the hands of a practised and skilful observer, is not thus lightly to be disposed of. It ought not to err, even for a single observation, more than 10" from the truth; and, we should say, that 30 or 40 observations would be sufficient to determine a latitude very nearly to the nearest second, or certainly, with an error of not more than 200 feet.—ED.

† Within the last half century, almost all the Observatories in Europe, with all their facilities, have corrected their latitudes, and in some instances considerably. That of the Cracow Observatory has been altered 15" or a quarter of a geographic mile; that of Gottingen, 19"; the Berlin Observatory 1 geographic mile; and that of Manheim has been augmented even 1' 23". But, without depending on instances in the west, reference may be made to the practice of Colonel Lambton, who invariably devoted several weeks to observations, for the latitudes of his principal stations: thus—

	No. of Days.					No. of Observations.	
At Doddagunta	59	...	...	..	98
At Putchapolliam	26	..	..	..	173
At Punuac	28	..	..	..	236
At Nanthabad	28	..	..	..	120
At Daumergidda			34	...	..	..	206

If the eclipses of Jupiter's satellites be used as the most simple expedient for determining the longitude, there are parts of the year, in which they are either below the horizon, or so little elevated as to be invisible or indistinct. The tables of these eclipses are not to be depended on where great accuracy is proposed, being more an approximation to direct the observer when to look out, than a final result for comparison with the observation *; add to which, that the gradual disappearance and re-appearance of the satellites, the unequal powers of the telescopes used, the various state of the atmosphere, and visual power of the observer, give rise to no inconsiderable differences in the times observed.

The eclipses of the moon furnish another method of equal simplicity: but they are of rare occurrence, and so inexact, from the uncertainty of the edge of the shadow, that the use of them for determining the longitude has been generally abandoned.

The remaining means, such as lunar distances, eclipses of the sun, and occultations of the stars and planets by the moon, the passages of the inferior planets over the sun's disk, the right ascensions of the moon with its horary angles and the differences of declination, are all attended with operose calculations, on account of the element of parallax, which affects them all. These methods have different degrees of certainty; but the occurrence of the phenomena on which they depend, are too rare to admit of any choice in a very limited time: and hence arises the great uncertainty of conclusions for longitude. Even the arc of the meridian measured in Peru by two French and two Spanish astronomers is found to have been placed too much to the east, 50' in arc; and the longitude of the Madras Observatory, which has existed 30 years, was not long since discovered to be in excess 1' 8". Nothing less than an average residence of two lunar months at one place, exclusive of the rainy season, can be considered sufficient for a result in longitude worthy of any consideration.

The errors of astronomical tables have been already adverted to as a source of error when unlimited reliance is placed on them: but those deductions of longitude, which depend on instantaneous phenomena, such as eclipses, transits and occultations, may be rendered more or less independent of those inaccuracies by corresponding observations at a place, whose longitude has been already satisfactorily determined. Many of the phenomena observable in India are invisible under the meridian of Greenwich; and some even of those, which may be visible in parts of India, influenced by the south-west monsoon, are not observable at the Madras Observatory, on the coast of Coromandel. A considerable portion of the observations, which may be made in various parts of India, will therefore be without correspondents; and it was a consideration of this circumstance, which, in part, induced me to suggest in my letter, under date the 4th February last, the establishment of a limited Observatory at the Surveyor-General's office, for the purpose of supplying the above-mentioned deficiency.

To avoid trespassing any longer on the attention of superior authority, I shall hasten to a conclusion of this most important subject, by remarking that no future survey should deserve to be considered final, unless it shall have been conducted on the most approved principles, with appropriate instruments, and by skilful hands; and that the accomplishment of such a work, which is alone worthy of the expense it costs, demands time and encouragement. Since the discovery of high scientific principles, all the advantage, derived from the application of them to practical purposes, has depended on the accuracy

* This is no longer the case. The Eclipses of Jupiter's satellites are now given in the Nautical Almanac, with an accuracy equal to that of observation; but, from the other causes mentioned, we have found single results liable to an error of about 10 or 15 seconds of time.—Ed.

of minute corrections in the execution, which never can be hurried without loss of effect; nor should the principles themselves be any more abandoned, as on them depends the calculus, which "should ever" (to use the words of the late Professor Playfair) "be so instituted as to preserve to the conclusions all the accuracy possessed by the data themselves." These, from the great perfection of modern art, may be rendered by skilful hands extremely correct; and the great desideratum therefore is reduced to the employment of good surveyors, with suitable instruments. Let these arguments, which challenge contradiction, stand in favour of the continuance of the great Trigonometrical Survey on an enlarged establishment, commensurate with the extent of country still open to its operations; or, if arguments without examples be insufficient, let the want be supplied by a reference to the extension of the great Ordnance Survey of Great Britain, after mature experience, to the shores of the sister kingdom.

The residence of Colonel Everest in England, and the representations he must have made to the Court of Directors, doubtless, had a direct influence in finally settling the question, as to the prosecution of the Trigonometrical Survey in all its integrity, as so ably contended for in Colonel Blacker's Report.

We now come to that part of the narrative, where Colonel Everest returns from England, with renewed health and vigour, with every available appliance which science or ingenuity could supply, and the most liberal encouragement of the Court could provide, to prosecute the great undertaking in which he had embarked, and for the success of which he naturally felt personally responsible. We shall see how he set about the task assigned to him, and what were the improved means he had at his command:—

Colonel Everest returned to India in 1830, liberally provided by the munificence of the Honourable Court of Directors, with geodetical instruments and apparatus of every description, in the construction of which the most skilful artists of the day, Messrs. Troughton & Simms, exhausted every resource of modern invention. The equipments consisted of a complete base line apparatus, the invention of Colonel Colby, precisely similar to that employed on the Ordnance Survey; a great theodolite, 36 inches in diameter, designed by Troughton, which even, at the present day, is supposed to stand unrivalled by any other instrument of the kind in the whole world, and which, most probably, will never be surpassed; two 18-inch theodolites, and a variety of smaller instruments, from 12 inches diameter downwards, all by the same celebrated maker. The signals, all of the most efficient kind, and recently invented, consisted of heliotropes, reverberatory lamps, and Drummond's lights, of which the two former have been exclusively used; and, here it may be remarked, that the substitution of luminous signals for opaque ones has contributed vastly to the improvement of the observations. These modern inventions, together with the extreme precision of Troughton's graduation, as well as the high optical power employed, and the rigorous system of changing zero, introduced by Colonel Everest, have brought the terrestrial operations to a refinement of accuracy which may almost be pronounced unsurpassable.

During his absence from India, Colonel Everest had made himself acquainted with the English Ordnance Survey system, and with every modern improvement in geodetical matters, that had taken place in Europe.

The apparatus, supplied by order of his Honourable masters, was superior to any in the world. A London artist, Mr. Henry Barrow, was sent out to maintain the apparatus in order. Thus splendidly equipped, Colonel Everest returned to India in the prime of life, the full vigour of his faculties, and with an undaunted determination of character, that never quailed before any difficulties, nor yielded to any opposition. The task before him required indeed the full display of all the vigour he possessed. In addition to the duties of superintendent of the Trigonometrical Survey, he had now to perform those of Surveyor-General of India, to which office he had recently been appointed by the Honourable Court of Directors. This union of offices, though it served to facilitate arrangements, nevertheless vastly increased his labours at the outset; for, the apparatus being new to India, and the establishment untrained, the whole task of teaching devolved on him unaided. In 1833, moreover, the offices of Deputy Surveyor-General at Madras and Bombay were abolished, which further increased the duties of the Surveyor-General of India, so that Colonel Everest had, in fact, to perform the work, which had hitherto occupied the undivided attention of four officers. In the sequel, these reductions have been found to operate conveniently enough, and so far have justified the expectations of the Honourable Court by whom they were ordered, but the additional labour thrown on the Surveyor-General is still immense; and occurring as these events did, at the time that the Trigonometrical Survey was about to re-commence on a new organization, the task, Colonel Everest had to achieve, was of the most arduous kind.

He was detained by all these arrangements, by official delays, and by the measurement of the Calcutta base line, until the end of 1832: from which time the Great Arc may be considered to have actually re-commenced, after a cessation of seven years. The work was carried on unremittingly till December, 1841, when it closed with the measurement of the Beder base line; and the whole Indian arc, from Cape Comorin to the Himalaya Mountains, forming the main axis of Indian geography, was thus completed.

These operations are fully detailed in Colonel Everest's book, published in 1847, by order of his firm and constant patrons, the Honourable the Court of Directors. The work has been most favourably noticed in the 87th volume of the *Edinburgh Review*, April 1848, to which reference can be made. The area comprised by the Great Arc operations, principal and secondary, aggregates 56,997 square miles, including the revision of the section Beder to Kalianpur, and the measurement of three base lines, each from $7\frac{1}{2}$ to 8 miles in length. The average progress, therefore, was about 5,700 square miles per annum, and the total cost being 8,98,326 Company's rupees, the rate per square mile averages Rs. 15-12-2, or, say, 29 shillings.

This rate considered *per se* is very moderate; but, contrasted with Colonel Lambton's, it exhibits a ratio of three to one. This is easily accounted for by the great superiority of the work, which is, perhaps, unsurpassed by any similar undertaking in the world. The instruments were much heavier and more numerous, requiring a larger establishment of porters. The signals, being all luminous, necessitated an increased number of attendants; the base line apparatus, infinitely more complicated and ponderous than Colonel Lambton's steel chains, demanded an additional number of observers, as well as greater cost of transport. A considerable part of the triangulation likewise passes through the plains of the Ganges, which is the garden of India. In this part of the country, compensation had to be paid wherever private property was interfered with; and costly masonry towers were erected for stations. These are the reasons, which enhanced the charges; but if the work be considered in relation to its superior

merits, as well as to the peculiarity of the circumstances, the rate of 29s. per square mile must be reckoned moderate.

The account of the measurement of the great longitudinal series from the Sironj base to the Calcutta base, and of the northern section of the arc of the meridian, is fully detailed in Everest's last book above quoted, published in 1847; of which a sufficient abstract for our present purposes is given above. This "axis of Indian geography" was satisfactorily determined by December, 1841.

We now proceed to notice the minor series contained in the Report. These may be said to emanate from, or be dependent on, the two great meridional and longitudinal measurements before described. In these series, each follows, as near as practicable, the meridian of one of the principal stations of the longitudinal series, from whence it takes its origin, and is named after these stations, from villages at, or near the locality. The appellations, given to these operations, have often appeared to us rather unintelligible; but attached to Colonel Waugh's Report in the appendix is an excellent tabular statement of the expenses incurred, which enlightens us greatly as to their geographical position: and we therefore have been at some pains to detail the several districts traversed for the benefit of the uninitiated.

Between the meridian then of the Great Arc, passing through the centre of the continent of India in $77^{\circ} 41'$ of E. longitude, from Cape Comorin to Dehra Dhún at the foot of the Himalayas, and the meridian of Calcutta, in $88^{\circ} 25'$ of E. longitude, there are 10 series of triangles, all emanating from the great longitudinal series, at distances of about one degree, or 60 miles apart, taking meridional directions, and terminating at another cross or longitudinal series, traversing the foot of the hills from the Sonakhoda base in the Purneah district, due north of Calcutta, and extending to the Dehra Dhún base. These series, or sets of triangles, all running in as straight and direct a manner as possible, form a figure not very unlike a *gridiron*, to which they have, with some apparent reason, been likened. The first series, in the order, next and eastward of the Great Arc, is the *Budhon*, which, taking its origin at the principal station of that name, on the longitudinal series in the Saugor and Nerbudda territory, passes through Scindia's dominions, the district of Agra, Moradabad, &c., until it reaches the hills at Hurdwar. The area covered by this series, amounts to 12,468 square miles. From various untoward circumstances, caused by deaths of the officers employed and other difficulties, it occupied a period of eleven years, from the commencement in 1833. The cost was

1,72,510 rupees, giving an average of 13-13-5 per square mile, or about 25 shillings.

Next comes the *Ranghir* series. It starts from nearly the same parallel of latitude (24),° follows the meridian of 79° 28' for about 400 miles through the districts of Bundelkund, Etawah, Mynpuri, Bareilly, &c., and within the hills to Almorah, where the work closed in 1841. In this series, 16,088 square miles of country were covered, at an expense of 18,378 rupees, shewing an average cost of 7-5-9 per square mile, or only 14 shillings.

East of this follows the *Amna* series, cutting through the districts of Bandah, Humirpur, Cawnpur and the territory of the king of Oude, commenced in 1834, and concluded in 1839. It covers 5,565 square miles, performed at an outlay of 1,04,958 rupees, giving an average cost of 18-13-9 per square mile; or about 35 shillings.

The *Karara*, the *Gurwana*, the *Gora*, in like manner, pass through the districts of Allahabad, Mirzapur, and Benares respectively, and intersect all the districts of the Doab. After which the *Chendwar* takes Hazaribaug, Gyah, Behar, Patna, and Tirhut. The *Parasnath*, rising from the celebrated mountain of that name on the Great Trunk Road, traverses Monghyr and Bhaugulpur, both north and south of the Ganges. The *Maluncha* takes the eastern part of Bhaugulpur and Purneah: whilst the *Calcutta* series provides for the Hughly, Nuddea, Murshedabad, Malda, and Dinagepur districts, closing on the base of verification at Sonakhoda, in the Purneah district. The north longitudinal series extends from the Dehra Dhún base, along the frontier to the Sonakhoda base, a distance of 690 miles. The difficulties as regards climate and forest must have been immense, but they were as usual successfully overcome. The only triangulation carried south of the longitudinal series is that of the *Maluncha* and *Parasnath* series, the former extending to Midnapore, and the latter to Balasore. The coast series is also now in progress towards Madras, emanating from the Calcutta base, hitherto proceeding very slowly, owing to the nature of the country and the various difficulties which Lambton originally apprehended.

In the Bombay Presidency, a longitudinal series of 312 miles in length, commencing from the Great Arc near the Beder base, and terminating at Bombay, has been accomplished after some difficulty, and after the rejection of the work previously executed, which was found to have been prosecuted on an independent base and point of departure, contrary to the original design. In addition to which, a meridional series called the

Khansipur, commencing from the longitudinal series and extending north up to Indore, along the meridian of 75° E. longitude, is now in progress, and has been so since 1846. The result of all these operations may be summed up as follows:—

The accuracy attained by the modern operations, may be thus briefly stated. In the large triangulation, where, of course, the greatest refinement and most scrupulous care is observed, an error of one inch per mile, or $1\cdot63,360$ th part, amounts to 500 inches or 42 feet, or nearly half a second in arc of latitude or longitude in 500 miles, which distance is even exceeded between some of the bases. The work is reckoned liable to half this error, when executed with the great theodolite, on the principle of double series. The results attained by the new 24-inch theodolites are but little inferior to this degree of accuracy. When the series are single, the liability to error is reckoned to approach nearer to one inch per mile. When performed with good 18 inch theodolites, the error will exceed one inch per mile, according to the character of the graduation. With inferior instruments, or a less careful system, the accumulation of error would approach a foot per mile, which is equal to a ratio of $1\cdot5280$ th in linear dimension, or $1\cdot2,640$ th in area, or $\frac{1}{25}$ per cent, or six seconds of arc in the above distance.

In reviewing the whole progress of the Trigonometrical Survey of India, from its commencement by Colonel Lambton to the year 1848, it will be seen that the grand total of area triangulated amounts to 477,044 square miles, and the grand total of cost, to Company's rupees 34,12,787, or about 312,389*l*, showing an average cost of Rs. 7·2·5 per square mile, or about 13*s*. 1*d*.: which cannot but be considered remarkably moderate, especially when the nature of the country and climate, as well as the absence of all the usual resources to be found in Europe, are taken into account. The hardships and exposure of surveyors working in the field for the greater part of the year, in such a climate as India, and living under canvas, whilst all other servants of Government seek the protection of cool houses, are either little known or little appreciated. We have, on several occasions, kept the field throughout the year. The duties of the Trigonometrical Survey, likewise, are often unremitting day and night, because the best observations are obtained during the nocturnal hours, when the dust raised by hot winds subsides, and the atmosphere becomes clear and calm. The fatigue and exposure are trying to the most hardy constitutions: and this history will show how few officers have been able to withstand their effects. The loss of trained officers entails a considerable increase of expense, for their places cannot be efficiently taken by newly-appointed officers, until they have been thoroughly trained, while the cost of training is always an unproductive item in the account.

We regret that time and space will not permit us to go into the more minute details regarding each of these operations, or to dwell on the indefatigable and meritorious labours of the officers employed, which are so apparent throughout. We believe that Colonel Waugh's Report and Everest's book cannot be perused without a feeling of pride at the indomitable spirit and perseverance displayed in this great undertaking, alike honourable to the department and to every one connected with it. To those, who wish for an elaborate discourse on the geodetical principles involved, we refer to the *Edinburgh Review*, vol. 87, for 1848, page 392, where they will find more learned criticism than it is in our power to enter into, and with it high commendation—the work of Everest being

described as “a creditable one in every respect, and which, after the *base metrique* of the French astronomers, must be regarded as the most important contribution, which has been made to geodesy since the beginning of the present century.”

The duration of the Trigonometrical Survey next comes to be considered. This is a point, which can only be decided with the certainty of the limits of our Empire. With the immense additions made within the last few years, have these limits been yet reached? With the Burmese war on our hands, who can say whether or not we are to add another country for survey? The Ordnance Survey of England and Ireland was, we believe, commenced in the last century, long before Lambton measured his first base—and *they have not finished yet*. Let this be an answer to those who expect our British dominions to be completed off-hand. Let us see what Colonel Waugh writes on this important point:—

With regard to the duration of the Survey, it has been already remarked by the late Colonel Blacker, that the question depends on the strength of the establishment employed: which statement is true within certain limits defined by the power of supervision and training. The chief point is the rate per square mile, which I have shown to be on an average 15s. 4d. The Survey has been about 48 years in operation, chiefly on a small scale. Now, as the area of India exceeds Great Britain and Ireland some 12 times, we have, comparatively speaking, been only four years at work. Since the commencement, the object in view has perpetually extended. Successive wars have added continual accessions of territory to be surveyed. The late wars alone have given new kingdoms, with no less additional surface than 169,827 square miles, as will be apparent from the following statement.

Scinde.....	...	60,240	square miles
Jalander, Doab, and Kohistan	...	16,400	„
Protected Sikh and Hill States	...	15,187	„
The Punjab Proper.....	...	78,000	„

Total... .. 169,827 square miles.

The limits of our Empire, however, appear to have been at length reached. The total area of British India, as it now stands, including Scinde, Punjab, Jalander, Doab, and Tenasserim, has been carefully estimated at 800,758 square miles, and the native states at 508,442 square miles, making a grand total of 1,309,200 square miles, as the area of survey under my charge. A complete delineation of this vast superficial extent, amounting to 1½ million of square miles, confined within an external boundary of 11,260 miles in length, including every variety of configuration and climate, is an undertaking of unprecedented magnitude, demanding considerable time to accomplish with any pretensions to mathematical accuracy. The exertions hitherto made have been unremitting, and it is but justice to say that the progress has been, generally speaking, as honourable to the officers employed, as the results have been useful to the country.

Attached to the Report, there appears to have been a chart, shewing, at a glance, the extent of country triangulated, as well as surveyed in detail, up to the present time: but as the Honourable House ordered it to be deposited in their Library, it can

only there be inspected. If this chart had been lithographed, and published with the Report, it would have been a valuable addition, and a most useful document for reference.

The present strength of the Trigonometrical Survey consists of seven parties; and from their present employment a good idea of the existing state of the operations may be derived:—

The Trigonometrical Survey consists of seven parties, employed as follows:—

Two parties in the Punjab...	2
One party in extending the great longitudinal series, from Calcutta to Karachi, in Scinde...	1
The operations have reached Mount Abu; and there only remains to complete the hiatus through the desert.	
One party on the coast series from Calcutta to Madras; the results of which will be most important to maritime geography...	1
One party employed on the Hurilong series in Behar. (if possible, to be extended into Nipal) ...	1
One party employed in Bengal, on the Parasnath series...	1
One party employed in the Bombay Presidency ...	1
Total number of parties...	7

And the instrumental equipments, which are described as admirably adapted for the work in hand, and most liberally supplied by the munificence of the Court of Directors, for whose undeviating support Colonel Waugh pays a grateful tribute, consist of the following apparatus:—

One Colby's compensation apparatus for measuring base lines.

Two Great theodolites, 36 inches diameter, by Troughton & Simms, and Barrow, respectively.

Four 24-inch theodolites, by Simms & Barrow.

Two 18-inch theodolites, by Troughton & Simms.

Six 14-inch Vernier theodolites, by Simms.

Six 12 inch theodolites, by Troughton & Simms.

Twenty 7-inch theodolites, by Troughton & Simms.

Two Astronomical Circles of 3-feet diameter, by Troughton & Simms.

Five Astronomical Clocks.

Fourteen Chronometers.

* The signals consist of Argand lamps and Heliotropes.

The project for the future operations is full of promise; and, from the consideration of what remains to be done, Colonel Waugh is of opinion, that, in six or seven years time, such progress will have been made, as will bring the termination of the Trigonometrical Survey of all India in view: but before that time, no satisfactory opinion can be given, as, we think, will be evident to our readers after a perusal of the following details:—

The programme of future operations, which have been sanctioned, is as follows:—According to Colonel Everest's design, an ellipsoidal space is included between the Great Arc on the west, the Calcutta meridional series on the east, the great longitudinal series on the south, and the north longitudinal series along the frontier; which are verified by four base lines at their origin and termination; all measured with Colby's apparatus. This immense ellipsoidal area is filled up by subordinate meridional series nearly

one degree of longitude apart, which series depend on the great longitudinal series for origin, and on the north longitudinal for verification. This has been denominated the 'gridiron' system, and obviously possesses superior facilities for rapidity and accuracy. This design of Colonel Everest's has been nearly completed : for there remains only a small portion of the Hurlong meridian, and the northern part of the Parasnath meridian, which will be finished in two years. The country to the west of the Great Arc is intended to be triangulated on precisely the same principles. 1st. The north-west Himalaya series will extend from the Dehra Dhún base line to Peshawur, where it will be verified by a measured base. This series has reached the meridian of Cashmere, and may be expected to be completed in two or three years. 2ndly. The great longitudinal series will be extended from the Sironj base to Karachi, where it will be verified by a measured base. It has been carried as far as the borders of the desert, across which its further progress is uncertain, because no analogous operations have ever been attempted. 3rdly. Between the Peshawur and Karachi bases, will extend a great meridional series, between which and those before described, will be included an immense ellipsoidal area, averaging 9° of latitude by 10° of longitude. As all the bounding series will be executed with superior instruments, and duly verified by base lines, whereby limits will be placed to the intrusion of error, those series will be fit to verify the subordinate meridional series, by means of which the intermediate space is intended to be rapidly filled up at every degree of longitude apart, according to Colonel Everest's system.

To the east of the Calcutta meridian, it is proposed to extend the north longitudinal series, from the Sonakhoda base into Assam. From this series will depend other meridional triangulations at one degree apart, upon which the accurate geographical delineation of Eastern Bengal will be based.

The Bombay party will complete the remaining triangulation of that Presidency in a few years. There only remains, therefore, to be considered the vacant space to the south of the Calcutta longitudinal series, in which is embraced the hill country of Gondwana and the tributary Mahals, between the sources of the Son and Narbada, the Godavari river, and the sea. This region, inhabited by Aboriginal tribes, is unhealthy in the extreme, and of no value ; but from its rugged configuration, any survey not based on triangulation would accumulate vast errors. It is proposed to triangulate this region by meridional series at every two degrees apart, filling up the interstices with secondary triangulation. In this way that space can be most rapidly surveyed. The accomplishment of these several plans will complete the trigonometrical survey of all British India ; and in six or seven years such progress will have been made, as will bring the termination in view ; before which time no satisfactory opinion can be given

In estimating the probable future rate of progress, Colonel Waugh enters into some important considerations, as to the efficiency of the department in respect to officers. Unless adequate provision is made for filling up vacancies by competent men, of course, there would be much to fear. The life of a surveyor, is no child's play : and but very few can stand it. The Report shews how many have died, or been obliged to retire, just when they were becoming efficient. The following remarks, therefore, are worthy of consideration : —

With regard to the probable rate of progress, much depends on the efficiency of the officers, and on the accidents of climate to which the parties are so much exposed. In a hilly country, the average advance made per season by each party is now about 120 miles in length by 30 in breadth,

or say, 3,600 square miles. In a flat country, the average is 80 miles in length by 12 in breadth, or about 1,000 square miles. The average for both kinds of ground may be taken at the mean, or 2,300 square miles, which, multiplied by seven, gives 16,100 square miles per annum of probable progress. The cost is not likely to exceed the general average hitherto attained of 10s. or 12s. per square mile of hilly country, and from 20s. to 30s. in flat land, or a general average of 15s. to 16s. over all. This rate might be expected to diminish, if the department were made more efficient in officers. It has been shown in the foregoing narrative that few succeed in these arduous undertakings. A rigorous training is indispensable at the outset, without which success cannot be certain, nor any adherence expected to system. Widely dispersed as the surveys are, and remote from constant supervision, little by little innovations would creep in, and the character of the work become compromised. To prevent evils so calculated to retard the completion of the survey of India, due provision should be made for contingent vacancies, instead of waiting till they occur. A newly appointed officer is not effective for two years, and, when more than one vacancy occurs at a time, the task of training is inconvenient. The department is now so under-officed, that a few casualties occurring together would leave it unofficed—an anticipation which would give me more anxiety than it does, were it not for the great ability of a few of the subordinates, who are themselves competent practically to conduct series. It is evident that at the present stage of the business, when so large an area remains for survey, effective establishments are most important. In fact, an augmentation of two or three officers now would be more useful than filling up vacancies towards the close of the work. Such an augmentation would most likely provide for every contingency, without any further addition hereafter, as vacancies occur.

We are glad to see, that before concluding his remarks on the Trigonometrical portion of the Survey of India, Colonel Waugh takes the opportunity of bearing testimony to the meritorious services and high character of that useful class of subordinates, the uncovenanted sub-assistants. "A more loyal, 'zealous, and energetic body of men, (says Colonel Waugh) 'than the sub-assistants, forming the civil establishment of the 'Survey, is nowhere to be found: and their attainments are 'highly creditable to the state of education in India." Amongst these he particularly distinguishes Babu Radhanath Sikhdar, of whom we lately also had occasion to speak, when reviewing the Manual of Surveying. We believe, that the encomiums bestowed on these gentlemen are richly deserved, and most honourably earned.

Had Mr. Joseph Hume's motion referred simply to the Trigonometrical Survey, our labors might have ended here, but looking at the title page of the Blue book, we find it included "also Reports of the Surveys, whether general, revenue, or military, which have hitherto been carried on, completed, or are in 'progress, specifying the divisions or portions of India—also 'the number, and what sheets of the grand atlas have been 'completed and engraved, with the cost thereof to the Govern- 'ment, and the selling price per sheet to the public, and what 'progress the remaining sheets of the atlas are in:—"also "of 'the nature of the information collected in connection with

‘ the grand survey, and with the detailed surveys of India ; and
 ‘ list of all the memoirs and their contents sent in.”

Mr. Joseph Hume never does things by halves. Consequently here we have an elaborate tabular statement of all the revenue and military surveys, with a detailed opinion as to the value and importance of each, with the authors’ names and dates. The Report proceeds to speak of them thus :—

Having discussed the trigonometrical part of the subject, it remains to report on the land surveys, by which the interior is filled up. These are enumerated in a tabular statement, marked (D) in the Appendix. The greater part of the Madras peninsula has been taken up on the basis of the great triangulation, by means of minor triangles, and military plane table surveys executed on a scale of one inch per mile. This style of work is remarkably cheap—the cost per square mile not exceeding six rupees, or less than 12s. ; and in favourable localities, free from jungle fever, which is the dire enemy of all survey operations in India, the expense becomes much lower. This kind of survey, being based on triangulation, cannot accumulate error, and gives an admirable representation of the land ; but it requires good draughtsmen, who are difficult to be obtained in India. The system is peculiarly adapted to mountainous countries, where the value of the land being small, an expensive system is inapplicable. It has already been extensively carried out in the native states, and it is proposed to extend the same principles to the remainder.

At page 333 of No. XXXI. of this journal we gave our readers some idea of the extent to which the revenue survey in this Presidency has proceeded, with what remains to be accomplished. It is, therefore, not necessary to quote again from the Report before us ; we go on, therefore, to shew the accuracy, cost, and progress of this operation, as now attainable :—

As respects the accuracy attainable by the measurement of the revenue survey, it may be stated generally that the maximum error allowed in linear dimension, according to the test it is submitted to by traverse proof, is 10 links in 100 chains, equal to 5.28 feet per mile ; but in the actual prosecution of the extensive surveys of the season 1847-48, covering an area of about 16,000 square miles, the average ratio of correction employed for the closing of the traverses, is found to be only two feet per mile, or rather more than one-third of the allowed correction : $\frac{1}{10}$ per cent. therefore, for the Pergunnah, or main circuit measurement, is fully within practicability ; $\frac{1}{10}$ per cent. also may be allowed for the area of the district ; $\frac{1}{2}$ per cent. for the village survey area, and 1 per cent. for the interior detail measurement of cultivation and waste. But the most severe test to which a revenue survey can be subjected, is the comparison of its results with those of the Trigonometrical Survey ; and that this comparison may be performed as readily as possible, a due and proper connexion between the two Surveys is essential, and is now scrupulously maintained.

As a sample of the progress now made by the combined efforts of the officers employed on this side of India, and the cost at which the work is performed, the following analysis of the general average rates per square mile, with the total area completed, is given for the North Western Provinces, from the year 1833, and for Bengal from the year 1838—the first commencement of operations—down to the present time. The average for the North Western Provinces in the twelve seasons’ work, amounts to Rs. 16-8-8 per square mile ; and for Bengal it is, in a similar period, Rs. 20-14-10 per square mile ; whilst the general average on the whole area executed is only Rs. 18-8-8 per square mile. In the two

seasons of 1847-48, and 1848-49, upwards of 16,000 square miles of country appear to have been surveyed by the united exertions of eight different parties in the two provinces.

NORTH WESTERN PROVINCES.			BENGAL PROVINCES.		
Season of Survey.	Area completed.	General Average Rate Per Sq. Mile.	Season of Survey.	Area completed.	General Average Rate Per Sq. Mile.
	Sq Miles	Rs As P		Sq. Miles.	Rs. As. P.
1833-34	3,747	29 4 1	1838-39	1,901	60 0 1
1834-35	5,282	21 7 5	1839-40	2,450	49 9 4
1835-36	5,391	27 5 11	1840-41	5,145	23 3 4
1836-37	7,455	23 15 0	1841-42	9,132	22 5 7
1837-38	12,400	13 7 0	1842-43	6,035	22 13 0
1838-39	10,974	13 15 8	1843-44	7,079	18 4 4
1839-40	12,698	11 12 5	1844-45	7,043	16 10 2
1840-41	12,698	11 12 5	1845-46	8,967	12 10 8
1846-47	3,583	20 1 7	1846-47	7,429	14 9 5
1847-48	8,997	14 4 5	1847-48	7,097	18 2 5
1848-49	9,858	12 5 0	1848-49	6,243	21 0 4
1849-50	5,552	22 12 0	1849-50	5,162	24 11 10
Total ... 12	98,636	16 8 8	Total ... 12	73,684	20 14 10

	Area in Sq. Miles.	Cost in Rs.	Rate
Total of the two Provinces	172,321	31,74,101	18 6 8
* * * * *			

It will be apparent, from the foregoing statements, that the revenue surveys supply the interior filling up of the triangles in the British revenue districts, which are chiefly flat lands, to which that system is most applicable. In native states and wild hilly countries, the topographical surveys before described are admirably adapted to the object in view, which is a complete and inexpensive first survey of all India. Considered in this point of view, the work may challenge comparison with any in the world. The triangulation supplies a permanent and accurate basis for the present, as well as for future internal surveys; for it must be borne in mind that, as the resources of this country become developed under the fostering protection of British rule, the topographical aspect of many districts must, in a moderate number of years, be completely changed. Tracts now covered with jungle will be reclaimed, canals will be dug, marshes drained, and roads established. New towns and villages will arise, and fresh groves be planted, and rivers will change their courses. That these views are not chimerical may be attested by my own experience, during 22 years of wandering throughout the length and breadth of the land; for places where, in my early days, I hunted the tiger, the bear, and the boar, are now covered with smiling fields, yielding a plentiful harvest to the cultivator. The greatest difference is also perceptible in the extension of towns and villages, showing the increase of productive wealth, which is taking place on all sides. On the other hand, in many native states, the jungle is advancing on cultivation, and the people thus become the alternate prey of men and wild beasts. These alterations cannot but produce, in the course of time, considerable changes in the topographical features of the country, for which reason revised surveys will be required; and these, like the present ones, will be based on the operations of the Great Trigonometrical Survey of

India, which are intended to form a lasting monument for future generations, and an imperishable record of the landmarks of the present time

The Report concludes with a "list of distinguished officers, in connexion with the accurate survey of India," which we cannot resist giving verbatim. It is in our opinion an honour to be associated with such men, and an equal honour to have shared in the toils and labors of a department presided over by an officer of Colonel Waugh's high reputation—a reputation second to that of neither of his predecessors:—

Before concluding these Memoirs, it may be considered a just tribute to those officers, who have been most conspicuous for meritorious service in connexion with the accurate geography of India, to place their names on record. Colonel Lambton and Colonel Everest stand pre-eminently above all others for scientific services, and their names are held in affectionate remembrance in this department. To these may be added, Captain Renny Talloir of engineers, astronomical assistant, Captain Jacob, of the Bombay engineers, late 1st assistant, and Mr G. Logan, 1st assistant, all of the Trigonometrical Survey, whose services have been as valuable as of long duration; and Colonel Wilcox, afterwards astronomer to the king of Lucknow; the late General Hodson, Colonel T. Oliver, Major Herbert, and Major W. Brown, of the old revenue survey, together with Captain Thunliher, the present Deputy Surveyor General, whose abilities are of a high order, and Captain R. Smyth, of the Bengal artillery, both of whom are ardent admirers of accuracy. In the Madras Presidency, Captain Du Verney, the late Captain Garling, Major Ward, and Captain Snell +

In the appendix are to be found several statistical tables of the area population of the several districts and native states, under the three Presidencies; and a return by Mr. Walker, the Hon'ble Company's hydrographer, shewing that 41 sections of the *Indian Atlas* have already been engraved, at a cost for drawing and engraving of £5,844, the selling price to the public being 4 shillings colored; and that 14 sheets, or sections† more, embracing portions of each Presidency, are now in course of being engraved in England.

* Evidently by inadvertency the distinguished name of Colonel Blacker is omitted.—Ed.

† SHEETS of the INDIAN ATLAS now in course of being Engraved.

Number according to Index Map.	
24	contains Northern Konkun.
25	" part of Southern Konkun, including Bombay.
26	" part of Southern Konkun.
27 }	" parts of Southern Konkun, Southern Mahratta country, Goa territory,
41 }	" &c.
39	" Poonah, Ahmednuggur, parts of Bhir, Purrainda, &c.
40	" The Satara territory, Kolapur, Bijapur, &c.
51	" parts of Scindiah's Dominions, Kotah, &c.
55	" Bassin, Maiker, parts of Jalnah, Patri, &c.
57	" Mulkhaid, Kulburga, Suggur, and part of Scholapur.
74	" Eilgundel, Mullungur, Wurungul, &c.
88	" Allahabad, Jounpur, parts of Bandah, Futtehpur, Mirzapore, Benares, Azimgurh, and of the southern part of the territory of Oude.
102	" parts of Goruckpur, Sarun, Tirthut and Nepal.
103	" Ghazipore, parts of Shahabad, Behar, Patna, Azimgurh, Sarun, Benares and Tirthut.

JOHN WALKER.

MISCELLANEOUS NOTICES.

1. *The Mitāksharā Darpan.*
2. *The Shabda Kalpa Druma; by Rajah Radhakant Deb.*
3. *The Asiatic Researches, vol. 1st.*
4. *Henry's History of England, vol. 3rd.*
5. *Ward on the Hindus, 3 vols. London.*

IN a rude state of society, where the laws of evidence are very imperfect, and on that account the difficulty of sifting the truth from conflicting testimonies appears to be insurmountable, a direct and summary appeal to the justice of Providence is naturally resorted to. Accordingly, we find that almost all the ancient nations were familiar with trial by ordeal; and many nations, who are still beyond the pale of enlightenment, have recourse to it up to this day. In Greece, Sardinia, Germany and Sweden, it was very frequently used in former times. Among our Anglo-Saxon ancestors, it was a fearful instrument in the hands of designing monks. In Japan, traces of it may be discovered even now: and among a certain race on the coast of Malabar, it is said that a person has to swim over the River Cranganor, which swarms with alligators of a monstrous size, to prove his innocence.

But trial by ordeal was carried to a greater extent, and practised under a greater variety of forms, among the ancient Hindus than by any other nation. In a paper communicated to the *Asiatic Researches*, by Warren Hastings, Esquire, and by him received from Ali Ibrahim Khan, the then Chief Magistrate of Benares, nine sorts of this trial are mentioned, viz., first by *tula*, or the balance; second by *phal*, or hot iron; third by *udak*, or water; fourth by *bish*, or poison; fifth by *koshā*, or water, in which an idol has been washed; sixth by *tandul*, or rice; seventh by *tapta masak*, or taking up peas from boiling oil; eighth by *agni*, or fire; and ninth by the images of *dharma* and *adharma*. These and one other were the only sorts sanctioned by Sanskrit law givers. The manner of performing each shall be detailed hereafter.

Although among the Hindus, trial by ordeal seems to have been optional with either party, even when there were other ways of establishing the point at issue; yet neither the accused nor the accuser could appeal to it, unless he consented to pay a heavy penalty in case the *parikhyaniya*, or person tried, was found innocent. Yagnavalka confines trials of this nature to the crimes emphatically termed *mahāpātaka*. But the *Kalika Purana* extends it to others, such as rebellion and adultery. The ordeals by fire, poison, water, and the balance, were

never used when there was no prosecutor, except the king ; but it was otherwise with that by *kosha*, *i. e.*, “ water in which an idol has been washed.”

It is to be remembered, however, that in a great variety of cases of minor importance, the evidence of witnesses was always preferred to ordeals. The oaths administered are remarkable and worthy of notice, as they furnish a clue to the character of the people among whom they were used. A witness considered himself bound in conscience, when he swore by truth, by his sword, by a cow, by corn, by gold, by certain divinities, by his father's feet, by his child's head, by his wife, by his friend, and by staking the rewards of all the virtuous acts which he had performed.

“ Persons guilty of *maháputala*,” says Kátyáyana, “ are to be tried ‘ by ordeal beneath the rainbow, rebels before the palace, adulterers ‘ on the public thoroughfares, and other criminals in the courts of ‘ justice.”

The time, as well as the place, of the trial, is distinctly fixed. Says Pitámaha, “ the ordeal by balance must never be used in stormy ‘ weather, the ordeal by fire never in the hot months, and the ordeal ‘ by water never in the cold season.” Certain months and days also are limited for the different species of ordeal ; but it would be uninteresting to enumerate them here. Noon, evening, and twilight are mentioned as unsuitable hours : but all sorts of trial may take place *before the king and wise Brahmins*, some time after sunrise.

Caste was always taken into consideration to determine the species of ordeal by which a person was to be tried. The balance was for Brahmins, fire for Kshetrias, water for Vaisyas, and poison for Sudras. The Brahmins, who were both the law-makers and law-ex-pounders of ancient India, were careful enough to specify distinctly that poison was never to be tried on one of their own class. To give this exemption a show of fairness, the codes also enact that persons practising religious austerities, or labouring under some disease, the blind, the lame, the decrepit, women and children, are to be subjected only to the ordeals by *tula* and *kosha*, *i. e.*, “ the balance” and “ water in which an idol has been washed.” Yagnavalka further states, that poison should never be tried on weak constitutions. Besides the nine species of ordeal, there was another set apart for persons *not touchable*, comprising menials, *Chandalas*, and *Mlechas*. This consisted in placing a venomous reptile within an earthen pot, and asking the criminal to draw it out. The readiness, with which he complied with this very reasonable request, was never considered as an extenuation of his guilt : neither was his being unhurt in the performance of his dangerous task a perfect proof of his innocence, for the belief in charms and incantations against snakes and other poisonous animals was then greatly prevalent. He was therefore liable to be tried again in a different manner.

In real actions, or actions about immoveable property, the use of the

ordeal was not at all frequent. Yet in the absence both of documentary and oral evidence, it was sometimes appealed to. In actions personal, the amount of property, disputed or claimed, settled in a great measure the species of ordeal by which one of the parties was to be tried. Poison was generally the criterion, where the cause of action, or property stolen, amounted to 1,000 panas or more; fire, if it was 750 panas; water, if it was 500 panas; and so on. Rebels and murderers were liable to be tried by any kind of ordeal, even when there was evidence of a different character to substantiate their guilt.

The principle, on which is founded the Biblical doctrine, "to whomsoever much is given, from him much shall be required," is fully recognised by the Hindu legislators. The laws, relating to ordeals, were much more stringent over the well-informed (the Brahmins of course excepted) than over the simple and ignorant. "A person 'who steals a cow,' says Yagnavalka, "should be tried by hot iron in case he does not belong to the lowest class of reprobates, 'the severity of his punishment, instead of being less, should be 'four fold.'"

We now proceed to describe the mode in which each of the nine species of trial mentioned used to take place.

I. THE ORDEAL BY BALANCE, which appears to have been in very general use, was thus performed. The accused, after being weighed with a substance of equal heaviness, was made to repeat the following words, "O balance, type of truth, created by the gods, disperse thou the doubts that have been cast upon me; if I am guilty, may I come down; if I am innocent, make me rise up." A leaf, bearing the names of Aditya (the sun), Chandra (the moon), Anila (wind), Anala (fire), Dyo (the sky), Bhumi (earth), Apa (water), Hridya (mind), Yama (the Indian Pluto), Ahan (day), Rātri (night), Prata Sandhyá (morning twilight), and Sáyang Sandhyá (evening twilight), was next tied round his head. Facing the east, he was made then to resume his seat, the *práribhák*, or judge, exclaiming aloud, "O Dharma, grace this spot with thy presence, accompanied by the *dik pals*, *Aditya*, and the other *debatas*." Music (conch, drum and cymbal) sounded at the same time from every direction, and odoriferous smoke rose in volumes to heaven. The duration of the trial was never more than one *binnári*, which, according to our calculations, is equivalent to half a minute. If at the end of this time, the accused was found to be lighter than the opposite weight, his innocence could not be questioned; if equal, or more heavy, his guilt was proved. In fact, his innocence and guilt were considered proportionate to the degree in which the arm, which supported him, rose or sunk. The verdict was given, not by the *práribhák*, but by a number of persons (something in the way of our modern jury) appointed by the king to assist him.

"The *práribhák*," says the *Mitákshará*, "should always be a Brahmin,

‘ well versed in the Shastras, and especially in the four Vedas. He
 ‘ should neither be covetous nor worldly-minded, but upright, humane,
 ‘ and impartial. His garments should be as pure as his heart, and he
 ‘ should be reputed for constant fasts.”

The balance itself, and the preliminary ceremonies for constructing it, remain yet to be spoken of. When the tree was felled, prayers were offered to the *Dik-pals*. The beam, or rod, that was made out of it, was flat, straight, and indented in three places. It was four cubits long, and painted all over with curious devices. The test that it was properly adjusted, was by pouring water into a shallow groove on the top. If the water slid down the beam, the adjustment was considered imperfect. Preparatory to the trial, the figures of Indra, Yama, Varuna, and Kuvera were drawn on the floor, and worshipped by the *prárbibák*, with offerings of red flowers. The balance itself was also worshipped. Brahmins, appointed to the purpose, paid it daily homage within its sacred enclosure.

II. THE ORDEAL BY HOT IRON. In this as well as in every other ordeal, Dharma was invoked; and a leaf, bearing the name of certain divinities, was tied round the head of the accused in the same way as in the ordeal by balance. Nine circles (the first measuring sixteen fingers, the others thirty-two fingers each in circumference) were next drawn on the ground, and consecrated to different *debatas*. The first belonged to Agni, the second to Varuna, the third to Váyu, the fourth to Yama, the fifth to Indra, the sixth to Kuvera, the seventh to Chandra, the eighth to Surjya, the ninth to several gods. On the first of these the accused was made to stand. His palms were then covered with seven leaves of the *álhand* and *pipul*, and seven times tied round with a piece of white thread. Seven blades of Durva grass were also placed upon them. The *prárbibák*, who stood beside a large fire, performing the *homa*, now heated a small iron ball red hot, and cooled it again in a pan of water. The ceremony was performed twice. The third time that the ball was heated, he placed it on the hands of the accused, repeating the following *mantra*:—“ O *Agni*, thou art revered as the Vedas are; thou art worshipped in *homas*; thou art the mouth of all the *debatas*; thou art in the heart of every living being; thou art omniscient; thou knowest all that is secreted from men: free thou the person, that stands before me, from the stain that has been cast upon him.” The accused also pronounced a short address in praise of Agni, and walked over the next seven circles, dropping the ball on the ninth. His palms were then examined, and, if they were found to be scorched or burnt, he was forthwith pronounced guilty. If the ball was dropped, before the accused had passed over the allotted space, the trial commenced anew.

III. THE ORDEAL BY WATER stands third in our list. The spot, whereon it should be performed, is very particularly described by Pitámaha. Without entering into his prolix descriptions, we shall give their purport in brief:—“ The river, lake, or tank, as the case

‘ may be, in which a person is to be tried, should be perfectly calm. It should be uninhabited by alligators, reptiles, or fishes. Its margin should be flat and even, and the prospect all around wholly uninterrupted.’

The trial commenced with offerings of flowers to Varuna, the god of water, and the following address from the *prárbidák* to the element itself:—“Thou, O water, art the life of all living beings. Thou wert created before all other things at the dawn of time;* by thee are we purified; and by thee this person shall be judged.” A man holding a *palásha*, (staff), of a certain height in his hand, then descended into the water up to his middle. The accused was made to descend lower, and, touching the knees of the man for support, stood in readiness. Two arrows were then discharged in succession by a person on land, amid the shouts of the spectators. As soon as the third shaft hurtled through the air, a runner reputed for his swiftness, followed it, and the accused dived into the waves. If the accused rose before the shaft was brought back, he was considered to be guilty.

“The archer should either be a Brahmin or a Kshetrya, familiar with the use of the bow. He should be free from passions, and worthy the respect of all manner of men.”—*Mitákshará*.

IV. THE ORDEAL BY POISON, as has been stated elsewhere, was never tried on Brahmins. Of the nine sorts, it was the least frequently used. The legislature intended it for the vilest of the vile. It was considered to be fraught with danger. The accused, in the first place, addressed the *bish*, or poison, which he was to drink, with the following words.—“O *Bish*, thou art the offspring of Brahma, thou knowest what is true and what is false. Save me from my maligners. If I am innocent, be thou to me as the *amrita*, which the gods delight to drink.” The *debátas* were then worshipped, especially Shiva, or Maheswar, one of the triad, celebrated for his forehead of fire, his necklace of serpents, and for drinking intoxicating and poisonous drugs.

There are restrictions, as to the kind and quantity of the poison to be swallowed. According to Pitámaha, the poison should be the production of the Himalaya mountains, and the quantity vary from four to seven *jabas*. It should be mixed with thirty times its weight of *ghí*; and, when taken, strict precautions were observed to prevent the presence of magicians and charmers at the time. A breath, a syllable, might render the draught perfectly innocuous. After it was swallowed, five hundred clappings of the hands of a stander-by were counted. If within this time no visible change for the worse took place, either in the appearance, or the health of the accused,

* We may here trace a remarkable coincidence between the Hindu and Mosaic accounts of the creation. According to Menu, water was the first thing that God called into existence.

“In the beginning God created the heaven and the earth, and the earth was without form and void, and darkness was upon the *face of the deep*, and the Spirit of God moved upon *the face of the waters*.”—*Genesis I*.

he was discharged, as guiltless; and the fine levied from the opposite party.

The effect of the poison on the constitution of the culprit was sometimes truly terrible. His hair fell off, and "beads of sweat stood upon his brow." The multitudinous signs of approaching dissolution, the colourless palms, the sunken eyes, the spectral voice, and hiccup followed. Amid unutterable agonies, he met death. A mistaken notion of the attributes of God, and the machinations of wicked men, induced him to take a step inconsistent both with reason and humanity. He paid dearly for a fault which, in the present day, would be regarded as trivial.*

V. THE ORDEAL BY KOSHIA, *i. e.*, "water in which an idol has been washed." In this there were several ceremonies similar to those performed in the water ordeal already described, and which it would be profitless to repeat. We shall only give a brief account of it. It commenced with the worship of the image of some wrathful divinity, such as Durga, or Surjya. The image was then washed, and the water received in a copper basin for the accused, who was made to drink of it thrice with his face towards the sun. If, within a fortnight from the time, no evil of a startling nature happened to him, he was pronounced guiltless.

The ordeals by *kosha* and *tula* were attended with little or no danger, and afforded, we believe, very fair chances of escape to the accused. They were therefore reserved for the Brahmins and the classes whom they favoured. According to Pitāmaha, "the ordeal by *kosha* is not for thieves, fornicators and *nastiks*, but for the pure and holy." Even uncleanness and personal deformity were considered to be objections.

VI. THE ORDEAL BY RICE was especially meant for persons committed for theft. A quantity of white rice was wetted in water, and exposed to the rays of the sun for one whole day. The accused was made to munch a mouthful of this rice. If his jaws betrayed any symptoms of pain, or his body any symptoms of uneasiness, or if, when he spat on a *pipul* or *varjya* leaf, his spittle was streaked with blood, he was considered to be guilty.

VII. THE ORDEAL BY TAPTA MASAK. It was thus performed. A cup, sixteen fingers in width and four in depth, made either of gold, silver, copper or clay, was filled with *ghi*, and placed over a strong fire. When the *ghi* was of a boiling temperature, a small piece of gold, or, as was more frequently the case, a small ring was thrown into it. The accused then was made to repeat these words:—"Thou, O *Ghi*, art the purest of all substances; thou art used in *homas*; if I am guilty, do not fail to burn me." If his fingers trembled in taking out the ring, or if, when it was taken out, the slightest mark of a scald was discernible upon them, his guilt was proved. It is to be remembered that the ring was not allowed to be hastily dropped, but was retained in the hands of the accused for a considerable time.

* The snake in the earthen pot was another form of this ordeal.

VIII. THE ORDEAL BY FIRE. In this the accused was made to walk barefooted through a trench filled with burning *pipul* wood. If he escaped unburnt, he was pronounced guiltless.

The NINTH species of ordeal, which alone remains to be described, was by the images of *dharma* and *adharma*. This was something like a drawing of lots. *Dharma* was represented by an image of silver, and *adharma* by one of iron. After being washed with *panchgarbi* (a compound of not very clean substances), these images were placed within a box of convenient dimensions, the top of which was covered over with a piece of white cloth. The accused, from whom the preliminary arrangements were secreted, then drew out one of them. If he laid his hand upon *adharma*, he was considered to be guilty of the crime with which he was charged. White and black portraits of *dharma* and *adharma* were very often substituted for the images.

We have now gone over the descriptions of the several species of ordeal as contained in the *Mitaksharā*. It remains to state that the punishment of the accused, when he was found guilty by one or other of the ordeals, was generally the performance of certain penances. These penances were advantageous in the highest degree to a certain section of the community, whose influence over the ignorant and superstitious multitude was paramount; and perhaps some account of them will not be out of place.

Prāyaschitta, in Sanskrit, signifies that which destroys sin, or more concisely penance. The fanciful *Angiā* defines, or rather describes, it in the following words:—"As the sun disperseth and removeth darkness, so *prāyaschitta* disperseth and removeth sin. Even as the moon emerges from black clouds, so does a man emerge from his guilt, by the performance of *prāyaschitta*." It is to be remembered, that in India, the doctrine of transmigration is very generally prevalent. According to Menu a man is transformed into a tree or mountain after his death on account of his fleshly sins; into a bird or stag for faults committed by speech; and into a personage of the meanest caste for perverseness of heart. *Prāyaschitta*, performed according to the Shastras, is believed to be preventive of these and the like transformations.

A detailed description of the ceremonies, attendant on the different kinds of *prāyaschitta*, would be very interesting. We shall merely mention in what they usually consisted; and what sacrifices are enjoined for the preservation of the soul from the effects of *alipātaka*, *mahāpātaka*, *upapātaka*, &c. The God of the Christian requires from the sinner a broken and a contrite spirit: not so the numberless gods of the Hindus. Presents to Brahmins, ablutions in sacred streams, and the repetition of useless *mantras*, are what turn away their wrath, and conciliate their good-will. In that ponderous epic, the *Mahabhārata*, are the following words:—"A holy river possesses the power of cleansing iniquities, numberless though they be, as surely as fire possesses the power of igniting cotton." Gautama and

Viswamitra advocate presents of gold, clothes, cows, lands, horses and rice. To elucidate the subject further, we shall at once give the reader a list of some of the *pātaka*, with the respective penances required for them by the Shastras, from that excellent work, the *Shabda Kalpa Druma* :—

<i>Pātaka.</i>	<i>Penances.</i>				<i>Offg. Priest's Dakṣina, or fee.</i>	
	To perform a <i>bruta</i> , z. c., periodical worship of certain gods, accompanied with presents, &c for 12 consecutive years.				Or give to Brahmins {	Or 540 ka- huns { 100 cows, or 180 cows. { 100 kahuns cowries.. { of cowries.
1. Accidentally,						
2. Intentionally,	Same for 24 years,	or 300 cows			Or 1,080 kahuns .	200 cows, or 200 kahuns of cowries,
A Kshetṛya killing a Brahmin	1. Accidentally, ditto	24 ditto,	ditto,			ditto.
	2. Intentionally, ditto	48 ditto,	720 ditto,	2,160 ditto		400 cows, or 400 kahuns of cowries
A Vaiśya killing a Brahmin	1. Accidentally, ditto	36 ditto,	540 ditto,	1,620 ditto		300 cows, or 300 kahuns of cowries
	2. Intentionally, ditto	72 ditto,	1,080 ditto,	3,240 ditto		600 cows, or 600 kahuns of cowries
A Sudra killing a Brahmin	1. Accidentally, ditto	48 ditto,	720 ditto,	2,160 ditto		400 cows, or 400 kahuns of cowries
	2. Intentionally, ditto	96 ditto,	1,440 ditto,	4,320 ditto		800 cows, or 800 kahuns of cowries
A Brahmin drinking wine of a certain kind	ditto	24 ditto,	360 ditto,	1,080 ditto		200 cows, or 200 kahuns of cowries
A Sudra killing a cow belonging to a Brahmin	ditto	1½ months,	6 ditto,	18 ditto		1 cow, or 1 kahun.
A Brahmin killing a Sudra in his service	ditto	1 year,	15 ditto,	45 ditto		9 cows, or 9 kahuns.
Killing a common bird, such as a sparrow or crow	To fast for 1 night, or give to Brahmins 2 rotis of silver.					
Killing a heron, goose, ostrich, chakravaka, or hawk	To fast for 1 day and 1 night . .				Or give to Brahmins seeds of various kinds	½ a kahun.
Killing a man's weight of such birds as the kokila, the cock, the pigeon	Is equivalent to the wilful murder of a Sudra of the higher castes, and the penance is the same					
Cutting a tree or creeper with fruit	To perform a <i>bruta</i> , known as <i>prajapati bruta</i>				Or give to Brahmins 1 cow, or 3 kahuns of cowries.	
Putting a dish on which there is a lock of hair	To fast for one day,				Or give to Brahmins ¼ a kahun of cowries.	

The judicial combat, which occupied such a prominent place among the ordeals of Europe, and which was introduced into England by the Normans, was, as might have been expected, unknown in India. The people of India are weak and effeminate by nature; and, although with certain races inhabiting detached portions of its soil, such as the Rajpūts and Pindaris, the spirit of chivalry once burnt bright, and is not now wholly extinct, yet the lance and the pennon are far from being the distinguishing signs of the mass. The difference between a man born in India, and a man born in any part of Britain, or in a climate equally cold, is vast—not indeed in acuteness or power of mind, but in physical strength and moral

sensibility. The same sun, which stunts the dimensions of the Indian, and renders him unfit for vigorous bodily exertion, adds manliness to the form and strength to the sinews of the warlike Swiss. Yet it is not climate alone that has made the Hindu what he is. An utter disregard of the female sex, a degrading superstition, and a domineering priesthood, have all combined to render him powerless, and to dry up the nobler and better part of his being.

In England judicial combats actually took place up to the reign of the first Charles; and a full and interesting account of the manner of procedure may be found in the third book of Blackstone's Commentaries. At present they are wholly discountenanced*; but, even so late as 1818, the judges of the Court of King's Bench, in an appeal before them, pronounced judgment in favor of the appellee, *who waged his battle.*†

The ordeal of touch, long used in the north of Scotland, and even now a matter of popular belief, was also unknown in India. We extract from Fisher's Drawing-room Scrap Book for 1840 the following little poem, relative to this interesting mode of trial.—

- “ Stand back ! and let me pass
 On to the holy place !
 Stand back, my friend, if such thou be,
 Stand back, my slanderous enemy ;
 Impede me none : and let me see
 The dead man face to face !
- “ Oh body, stiff and stark,
 If I have done thee ill,
 Let every cruel wound of thine
 Pour to the earth the sanguine sign :
 Hide not the guilt, if it is mine,
 Oh body, stark and still !
- “ I, that have been thy friend,
 And with thee counsel ta'en,
 To whom thy secret thoughts were shown ;
 Whose soul was precious as mine own ;
 Oh ! if this deed were mine, make known
 By blood out-poured like rain !
- “ Here on thy stony brow,
 My bared right hand I lay ;
 Here on thy loving, wounded breast,
 Into thy wounds my hand is prest :—
 Oh, body by black wrong distressed,
 If I am guilty, say !
- “ My hand hath not a stain ;
 The death robe yet is white !
 Now, slanderer, come forth, an' thou dare,
 And here upon this altar-stair,
 Stand with firm foot, and right hand bare ;
 So heaven attest the right !
- “ I challenge thee to proof !
 I know the secret wood
 Where thou and thine accomplice ran :—
 Here lieth he, thy murdered man !
 Now, touch that body stark and wan,
 And dare the accusing blood !”

* Abolished by 59 Geo. 3rd, c. 46.

† See Barnwell and Alderson's Reports, Vol. 1, page 405—*Ashford against Thornton*.

The ordeals by hot water and hot iron of the monks of old England resembled those by *tapta masak* and *agni* before described ; the cold-water ordeal, however, of the ancient Britons differed greatly from the water ordeal of the Hindus. But Hindustan can show nothing more cruel or unjust, than the English water trial for persons suspected of witchcraft. If the poor woman, flung into the water, floated, she was burnt ; if she sank, she was generally drowned. And yet, we are scarcely a century removed from such barbarism.

In India, wherever Britain's power is felt, trial by ordeal has been numbered with the things that were. The mode, in which the Hindu king and the Muhammadan despot very often administered justice, is regarded by the present enlightened rulers of the land as cruel and absurd. To try a woman by the flames, as (if the Ramayana speaks true) Sita was tried in the days of yore, or to make a prisoner swallow poison to prove his innocence, would outrage the feelings of any Christian man. Other practices equally barbarous are also fast disappearing, and wise laws are being substituted for superstitious ordinances. Lord William Bentinck, one of the best Governors that ever trod our Indian soil, has rescued the Sati from the pyre, and his memory is cherished with the deepest veneration by the rising generation. Hindu infanticide, that horrible crime, about which so much has been written in previous numbers of this *Review*, is daily decreasing in central and western India. A well-timed and judicious enactment for the protection of the rights of persons changing their opinions, and openly avowing what they inwardly feel, has been passed in spite of strenuous opposition. But although all this has been done by the united efforts of zealous philanthropists and a paternal Government, much yet *remains* to be done, both by Government and philanthropists. The distinctions of caste are still kept up ; and the Kulin Brahmin weds a hundred wives with impunity. Still is the most sacred of all earthly ties perverted by early marriages. Still are women mewed up in the zenana. The hooked fakir still swings on the gibbet. Still are the sick daily carried by their nearest relatives to the banks of the Ganges, and cast on the ground under the burning rays of a tropical sun. Still does the infatuated Hindu throw himself prone on the dust before some hideous idol. The mass of the people is still destitute of correct notions of right and wrong. The prospect before us is a chequered prospect—here bright with approaching light, there dark as Erebus. But the good work of India's regeneration has begun ;—let no man spare his efforts for the great and glorious consummation !

NOTE BY THE EDITOR.—The ordeal by hot iron was made use of at Benares, as late as A. D 1783, with the sanction of the Company's Government. A man named *Sanhar*, was committed for theft. There was no legal evidence against him ; but he was willing, and even eager, to appeal to this ordeal in proof of his innocence. Both parties obstinately rejected a decision by oath on the Ganges water, or the *Salgram* ; and the Government, after considerable delay, finally allowed the appeal to the ordeal for the four following reasons : First, there was no legal evidence ; secondly, the ordeal was appointed by the Shastras ; thirdly, it was

still practised in many parts of Hindustan; and, fourthly, *as a curious experiment in physics*. So at least says Ali Ibrahim Khan, who, as magistrate, was cognizant of all the proceedings. The ordeal was accordingly performed, in the presence of five hundred people, exactly as stated in the text, with the addition, that, immediately before the red hot ball was placed on his hands, "to remove all suspicion of deceit, *his hands were washed with pure water.*"

The accused walked steadily through all the rings; and was found to have escaped unhurt. Stimulated by his success, another culprit appealed, in the same year, to the ordeal by boiling oil; and his appeal also was allowed. But, this time, the poor fellow was not so fortunate, and had his hand severely burnt. In his case, the accuser was a Brahmin, and there was no previous *washing of the hands*. We are not aware of any later instances in British India.

It is impossible to read these cases, without being reminded of certain curious experiments, which are said to have been publicly exhibited in England a few months ago. They would seem to prove that dipping the hands in water preserves it (for a short time at least) from the action of heat, and enables it to handle red hot iron with impunity. The water, turned into steam by the approach of the heated body, is supposed to interpose as an impermeable cover, or guard, between it and the skin. If this be true, the *rationale* of such an ordeal may be easily comprehended.

We recommend the experiment to Dr. O'Shaughnessy.

The Life and Religion of Muhammad, as contained in the Shiáh traditions of the Hyát ul Kulúb, translated from the Persian by the Rev. J. Merrick, Eleven years Missionary to the Persians, Member of the American Oriental Society. Boston, Phillips and Co. Calcutta, Thacker and Co. 6 Rupees 8 Annas. 8vo. pp. 483.

THIS work is highly creditable to the industry of the author, who is one of the very few missionaries, who have paid attention to the Muhammadan controversy, and, as a basis for it, to an accurate study of the life of Muhammad and his contemporaries. It is a matter of no small surprise that a system of polity and religion, which prevailed over a far wider extent of territory than the Roman Empire, should have engaged so little the attention of the learned. The Saracens in eighty years achieved greater conquests than the Romans did in 800; while the Court of the Kalíphs at Bagdad had also its literary glory and its Augustan age. But of late years the condition of the Turkish Empire and the effects of steam communication have directed more of the public attention to Muhammadanism.

As we have already treated of Muhammad and his biographers at considerable length in our notice of Dr. Sprenger's work, we shall only say now that Dr. Merrick's original authorities are of the Shiáh or legitimist sect. He gives their opinions, *quantum valeant*, on the correct principle, that "the best way to learn the religious opinions of a sect is to study their acknowledged faith in their own writings."

The following observations of the author deserve attentive consideration :—

“ Turning now to the theme of the following work, it is pertinent to remark, that the rise, progress, and permanence of Muhammadanism is one of the most remarkable facts, which has occurred in the history of our race. Next to the miraculous establishment and wonderful growth of Christianity, the Arabian system of religion is suited to arrest the attention of the historian, the philosopher, and of the benevolent man. Combining some of the most sublime truths of divine revelation, with a mass of oriental legends, gathered from the earliest forms of Gentile superstition, from the exuberance of rabbinical imagination, and the fruitful romances of monkish fancy, all consolidated into an unique system of faith ; armed with the flaming sword of conquest, and casting its ominous shadow for ages on the arena of Christendom,—the life and religion of Muhammad have ever challenged the attention of the world, as one of those great events, designed by the All-wise Omnipotent Ruler of nations, deeply to affect the welfare of the race. Considering the relation which Muhammadanism has sustained to the Christian world, it is certainly surprising that so little information on this subject has been diffused among the mass of readers in Europe and America, and that multitudes of considerable intelligence have the impression that ‘ the followers of the false prophet ’ are gross idolators, hardly ‘ half civilized,’ and ‘ denying females the possession of immortal souls. ’ ”

The subsequent remarks of Mr. Merrick deserve also the serious consideration of every friend of Missions in India :—

“ The best way to learn the religious opinions of a sect is to study their acknowledged faith in their own writings ; and therefore fair and accurate translations from Muhammadan authorities are indispensable to those who would critically understand what Islām truly is. All, who will ever find occasion practically to engage in controversy with Muhammadans, should certainly gain as extensive an acquaintance as possible with Moslem authorities on Islām : for, without this knowledge, the most talented reasoner must enter the arena of argumentation under great disadvantages, and with very small prospect of success.

“ Persons, who may sneer at the cosmogony, astronomy, and astrology, recognized in the Moslem system, would do well to inquire how long it is since their own ancestors were freed from the same erroneous notions ; while those conversant with the history of fairies, genii, and the various orders of spirits, imagined by our not very remote forefathers to hover and dwell about the earth, will find its oriental Parees, Jinns, and other species of supposed existences, the prototypes, whose representatives Teutonic emigrants brought from the cradle of the East.

“ The present attitude of the Christian and Muhammadan world, and the issue to which, after many essays in arms, they must ultimately

' come to in religious argument, should surely lead the philanthropic and benevolent to prepare for the contest, where mind meets mind, and faith encounters faith, till truth and peace finally prevail. Evangelical enterprise has traversed almost all regions, and gone to work with devoted perseverance in every clime: but it is singular how little has been done or attempted for the welfare and salvation of Muhammadans. As the literary world has turned on them only an occasional glance, so the religious world has passed them by with a look of hopelessness, as if the broad commission to 'disciple all nations' were devoid of authority in the empire of the Korán.

"But the apathy and despair of ages begin to diminish; the Holy Scriptures are printed and circulated in Arabic, Turkish, and Persian, the three great dialects of Islám; inquiries are multiplying in relation to Muhammad and his doctrines; and, within a year past, three different works have been announced in our own country, respecting the life and religion of him, whom Napoleon styled the greatest of earthly conquerors. It may be hoped that increased information will lead to more systematic and persevering effort to diffuse, through the Moslem world, the freedom, peace, and righteousness of the Gospel, and thus may repay with good the evil which Islám has done to the followers of Jesus. Why should a whole nation, so accessible and important as the Persians, where Providence has long been preparing the way, receive so few and transient heralds of truth, and now remain without a Gospel advocate devoted to their welfare, and wise to communicate the word of the Lord, as they are able to bear it?"

"If this version of the life and religion of Muhammad shall serve to entertain the curious, impart information to the inquiring, and above all lead the benevolent to feel a deeper interest, and make greater efforts for the welfare of the people to whom it relates, a sufficient reward will be conferred on the translator."

The Bible, the Korán, and the Talmud or; Biblical Legends of the Musalmans, compiled from Arabic sources, and compared with Jewish Traditions; by Dr. G. Weil. London. 1846.

WE have before noticed the ably written Life of Muhammad by Dr. Weil; the work before us now is by the same author and has been translated into English. We hope to see a translation of the Life of Muhammad also; though Washington Irving has already given us the most valuable parts of it, written with all the graces of his charming style.

Dr. Weil has only noticed those legends, which are considered *authentic* by the Musalmans. Muhammad himself considered them to be "the mother of the book," as embodying the germs of these

legends, which, drawn from Jewish and Christian sources, he has incorporated with such skill into the Koran, and which, in the guise of fictitious narrative, give us the essence of Moslem theology and ethics. Though these be myths, yet, as depicting the creed of 130 millions of the human race, they deserve consideration. Muhammad, not being a linguist, was obliged to draw his information regarding the Jews from oral information. but, at the same time, his mind being of an eclectic order, he followed in the track of Waraka, his wife's cousin, and formed a system divested of the ritualism of Judaism and of the mysteries of Christianity. He like others found "the love of the marvellous" a powerful principle in the human breast and, therefore, he has used it, particularly in making legendary appendages to the apparent simplicity of his faith and, as Dr. Weil shews, Jewish legends formed the great substratum for this legendary lore. Waraka, Salman, Salam and Bahira, his early instructors, were either Jews, or well informed in Jewish tradition, which Muhammad worked up into legends, breathing all the spirit of a poetical orientalism.

This work of Dr. Weil's contains legends concerning Adam, Enoch, Noah, Abraham, Joseph, Moses, Samuel, Solomon, Mary and Christ, which are remarkable for the junction of an historic basis, with fictions designed to captivate the senses and imagination of a rude people. Yet with all the vagaries of these legends, there are glimpses of thought thrown out to distant fields of poetic invention, such as—that Adam's soul was created a thousand years before his body (reminding one of the Platonic question—Can my soul be younger than my body?)—that the peacock, indulging in pride and flattery, was an instrument of Adam's fall—that Satan (*alias* sin) caused the serpent's poison.

But with these we have a mixture of monstrous tales, such as—that Adam's tears supplied birds and beasts with drink, and afforded water to the Euphrates—that his grief on the death of Abel was so great, that his stature was *reduced* to the measure of 180 feet!

The legends of the Muhammadans strongly confirm the views of those, who consider that Muhammadanism is not so much a new religion, as a perversion of Christianity. The heroes of the Bible are the heroes of Muhammadanism. Adam, Moses, Joseph and Solomon receive equal notice from Musalmans as from Christians, with the exception that the former make them objects of hero worship. The Musalmans do for the characters of Scripture what Sir W. Scott did for those of Scottish history.—on the substratum of reality they raise a mighty mound of imaginative details. The wonderful details, for instance, connected with Solomon, are all illustrative of his mighty wisdom and power.

Introduction to Sanskrit Grammar, compiled in Bengali, by Ishwar Chandra Vidyasagar. Rozario and Co. Lepage and Co.

To the learned Principal of the Sanskrit College, Ishwar Chandra Vidyasagar, are we indebted for this great step in advance—this smoothing the way to Sanskrit philology, and doing for native students of Sanskrit what Willams has done for European students, viz., modelling the Sanskrit Grammar on the improved principles of philological science. Sanskrit is useful as the parent of the chief Indian Vernaculars, and as the fount for theological and technical terms, independent of the poetic and other beauties enshrined in its literature. Hitherto the students of the Sanskrit College have had to slave at the crabbed and misty definitions of the Mugdubodha; the memory was the only faculty called into exercise, and this for three years. But now a student may read through this Grammar in six months with ease and pleasure to himself; and, having acquired a knowledge of the rules of *Sandhi*, the declensions and conjugations, he is prepared to begin the reading of some simple work, such as selections from the Ramayan, Mahabharat, &c, thus applying the rules he has learnt, and also acquiring new ideas on various subjects. Vopadeva and Panini seem to have had in view rather to afford a knotty and difficult exercise for the mind, than to smooth the path to the temple of Knowledge. We are glad to see this useful innovation introduced by an eminent Sanskrit scholar—one who, himself, having been trained up under the old system, has known by experience its disadvantages. The *Tatva-bodhini Sabha*, several years ago, published the first part of a Sanskrit Grammar; but they did not continue it beyond the pronouns. Dr. Ballantyne published in English a Catechism of Sanskrit Grammar for one rupee—but this one of Ishwar's, at the low rate of eight annas, deserves a wide circulation, and, being taught in the Sanskrit College, will send out a class of men trained in this simple and easy mode of commencing Sanskrit.

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Rijûpât or Simple Lessons; Part I.; compiled for the use of the Government Sanskrit College of Calcutta, by Ishwar Chandra Vidyasagar, Principal of that Institution. Calcutta. 1851. Rozario and Co. Lepage and Co.

THIS is designed as a sequel to the excellent Grammar of the author and we have only to regret that he has not given a translation into Bengali of the introductory part, so as to facilitate the progress of beginners, and enable them to pursue the study with greater zest. This is the plan now adopted in Europe, where students are not

required to devote years to the intricacies of Grammatical studies, but are encouraged to educe to a certain extent the rules of Grammar for themselves in the course of reading. In Sanskrit this is still most necessary. We long ardently for the day when the study of Sanskrit will be placed on its proper basis ; when, detached from the mysticisms and subtleties of the Pandits, it will be viewed as a grand philological instrument in connection with the Vernaculars, and as a mighty key, opening the doors to the æsthetic treasures of former days, enabling a native to delight in the beautiful strains of a Kalidás and Valmiki, as much as a modern Greek would in Homer and Euripides. It was one of the plans of the late Hon'ble J. E. D. Bethune to found Sanskrit Scholarships, to be competed for by students of the Hindu and other Government Colleges. We hope this project may yet be realised. Minds sharpened by the study of Western lore would make great progress in the Oriental department : and their example would tend to popularize an important branch of study.

Bole Ponjis. Containing the Tale of the Buccaneer ; a Bottle of Red Ink ; the Decline and Fall of Ghosts ; and other Ingredients. By Henry Meredith Parker, Bengal Civil Service. 2 vols. Thacker and Co. London and Calcutta. 1852.

THESE two elegant volumes contain a collection of performances in Prose and Verse, by Mr Parker, whose name, and still more whose initials, were once familiar in the mouths of all Calcutta, and of the readers of all Calcutta periodicals, as household words. Those who were amongst us in the days of other years will be glad to possess this *mélange* ; nor will they be sorry to find that a good part of its contents has been already before them. While those whose recollections of India do not stretch so far backwards, and many who have never been in India at all, but who can appreciate calm and genial humour, ought to form acquaintance with Mr. Parker, through the medium of these volumes.

There is many a transition " from grave to gay, from lively to severe ;" but the prevalent characteristic of the book is humour ; which occasionally, as in the " Oriental Tale," becomes broad and open mouthed, but which is generally of that chastened and tasteful kind, which was probably more appreciated in former times than in these days.

There is no so appropriate method of noticing books of this class, as that of presenting a few extracts, bricks chopped off as specimens of the building ; and this it is somewhat difficult to do in the present case, as it is our author's habit to run on from thought to thought, and from subject to subject, without caring much for a regular finish of one and a regular beginning of another. The fol-

lowing is on a subject that comes home to the bosoms (externally and internally) of all sojourners in this City of Palaces :—

CALCUTTA DUST.

There will be no *rain* ! but we shall see what there *will* be !—Not a breath of air on the earth, not a bird in the sky. What has become of all the crows ? For the first time in their long, useless, and uncomfortable lives, they are invisible, and have left off cawing. Not a sound to break the unnatural stillness, save the dull rolling of some distant carriage bearing forlorn and misguided persons in the very teeth of that mighty avalanche of gathering vapour, which becomes with every passing minute, blacker, and blacker, and blacker,—

“ Dark as ten furies, terrible as hell ”

Nature has no voice. Universal Pan is dumb. Man, alone, with his perked up impertinence, his jaunty self-complacency, his stupid presumption, and insolent non-chalance, slights or braves the manifestation of coming wrath. There are two pleasure-boats, even now, gracefully stooping to the passing currents of air, which play across the river, and dashing from their bows the miniature billows, (how long to be miniature ?) of the fast darkening Hugly. Unhappy men ! do you not heed the fearful shadows, which deepen with every moment on those turbid and fatal waters ? Already your white sails shew ghastly in the thickening gloom of the heavy atmosphere, and your tiny barks assume the spectral look no living boat should wear. Unhappy men ! have you no wives, no children, no mother waiting in the far-off home of some green English valley ? No father bowing his reverent head in prayer for the safety of the Indian exile ? Could you not die elsewhere ? Was it then foredoomed that the sharks and the alligators of this terrible stream should struggle in its impure depths for your mangled remains ?—Ah, you see it now ! Let fly the sheets ! jam the tiller hard down for your lives !—for your lives ! up with her into the wind !—By heaven, it is too late !—With a rush, like the rush of a tiger leaping at his prey ; with a noise, as though the host of Dan Daniel had broken loose, and ten thousand Afiect trumpeters were pealing the march of Eblis, till earth quivered at the demon uproar, the dry North-west wind upon us ; and midst crashing trees, and falling turrets, pours forth the howling rage of all his concentrated winds on the maddening and foaming river. But where is Calcutta ? where is Howrah ? where is Kidderpore ? The Fort, the Shipping, the Ochterlony Pillar, the Ship Cowasjee Family, Madame Chevrot the milliner's, Mr. Wilson, the pastry-cook's, the blue sky, the green earth, the great globe itself ? Obliterated—gone—vanished—blotted out from the map of creation ! They are no longer things of this universe ; they have become the palpable obscure—the dim—the visionary—the vague—the mysterious. They have shared the fate of the lost Pleiad, of Gilian Horner, of little Bo-peep's lambskins. The storm is as nothing. The terrible sky is as nothing. The boiling, groaning river is as nothing—danger is as nothing—terror is nothing—everything is nothing ;—for we are in the presence of dust—of dust lordling it over nature in all the awful ugliness of his unimaginable indescribable, atrocity.

A crumbled mountain, an up-heaved desert, is afloat in the raging air. A Vesuvius of pulverized brick, a Zulu, whose sands are the atoms of old shoes, dead cats, parched drain deposits, decayed verandahs, and weather-wasted chimneys. High towers the red pestilence, cloud above cloud, and billow rolling over billow. It is in vain we turn our eyes to the four points of the compass to seek some opening, some hope, some comfort. For us there are no points of the compass—east, west, north and south are blotted out for ever—“ Horrible on all sides round,” the grim and lurid atmosphere closes us in as with a dome, a floor, a pall, and a wall of dusky fire. We hear a roar like the roar of a thousand burning forests. We hear suffocated and faint screams, the crash of meeting carriages and shivered poles.

Now and then a mightier smash is heard, dumbly as it were, through the howl and hubbub of the tempest ; and a vast flying branch or two, torn from some great banyan or peepul tree just tottering to its own fall, shimmers darkly as it skims through the lurid atmosphere with the speed of a rock from a catapult. Now a hundred turbans, skirred from the heads of hairless and despairing coachmen, hurry with sudden and capricious bounds far over the plain, or floating about amidst the

deluge of dust which has mastery over earth and sky, add their multitudinous spots to the dimness and denseness of the suffocating atmosphere. Now Syces fall into ditches with great shouts, and led horses, led no more, gallop snorting and masterless over the invisible plain. There is a gentleman blind from the dust in his eyes, speechless from the dust in his mouth, deaf from the dust in his ears, and profoundly ignorant that at the present moment his English gelding hath its head through the smashed window of a palankeen carriage, amidst the wholly inaudible screams of the six young ladies, who, with their respectable mother, happen to be inside passengers. Here another is leading his wife's pony and his own Arabian, with his hat blown over his eyes and kept there, under a kind of supernatural pressure, by the upturned skirts of his riding coat. He proceeds at a sort of reluctant trot or involuntary amble, with the force of a hundred blast bellows power of wind assailing his rear most man (no longer fenced by his rebellious skirts) and wholly unable to accomplish the main object of his existence; that being, at this precise moment, a desperate longing to cast one look at his better-half. Alas, poor uxorious, with-one-horse-and-one-pony-encumbered, gentleman! he is wholly unconscious that the lady in question has, for the past five minutes, been safely deposited forty yards in the rear; a fact, indeed, of which the dear one herself was scarcely cognoscent, when blown over the long tail of her white Tamam, which "streams like a meteor in the troubled air," for the wind "did its sporting gently;" and a little mountain of dust, dropped by some exhausted whirlpool of the elements, received the fallen fan in its soft lap, and in a sitting posture, with all the gentleness due to her rank, sex and misfortune. But the hurricane of red, and, cutting dust pauses not. Trees topple down, chimneys shake, verandahs totter; an indescribable bellowing, groaning, and howling fill the vexed, distracted air, mingled with cries and crashes more terrible for the obscurity which envelopes all things. For ourselves we sit in darkness and a sort of dogged despair. We vainly are the miserable contrivance of doors and windows against this cruel cataract, this inundation, this all-pervading element of dust—Pooh! pshaw! poof! praff! ha! too! heherankh! We sputter, we pant, and at length, wrought up to mortal agony, we commit that which never happened to us but once before in our attenuated existence—We swear! Let the recording angel try to register our oath. He cannot. We defy him. His pen is clogged, his ink is like Tewksbury mustard with this Inferno of dust, this Paddlon, this Tautaus of pulverized bricks. But "fools rush in where angels fear to tread," and being utterly distracted, beside ourselves, in short a fool made imbecile by excess of dust, I will rashly in at the risk of suffocation, and deal upon the vile creature, though I die for it.

Dear! may the grave of thy father, may the grave of thine uncle be defiled! May thy mother wash the petticoats of the Furies in Phlegethon! Dust, I spit on thee! I trample on thee! I glare and gnash my teeth at thee! Thou art a beast, a brute, and the son of a brute! Oh progeny of a jack-ass, whose dog are we that we should swallow thee? Out upon thee, thou kicked off men and beasts, thou whiskered-about by the tails of cows, and little dogs; thou crawled-upon by pisinires! Thou art downed in the waters of the Hugly. Thou art hurried afar out into the depths of the Bay of Bengal, and foremost base brutish islets, hated of mankind and pilots; spawnaed on by crocodiles; scratched by supercilious tigers. Thou art by man made mud "filthy dowls." Thou art trodden under foot by "hollow pampered jades of Asia," drawing water carts, marked C. P. Thou art hurry-scurried over land and sea by such a blast as this. It treats thee with contempt. In sooth, Dust, thou art but a miserable monster, the slave after all of the elements. Rest is thine never, until, suffocated with dirty water, thou liest dead and unlamented. Oh how I rejoice over the multifarious miseries which are thy fate! They are sugar to my soul, myrobalam confits to my spirit. Dog! Villain! Deboshed Stockfish! Murderer of the traveller in the vicinity of Shary. Murderer of his coat in the neighbourhood of Piccadilly. Murderer of his peace everywhere. Thou Demigorgon "a tremendous gloom," Tale-bearer, for thou fillest ears with what is abominable. Hypocrite, for thou blindest clear eyes. Poisoner, ravager, destroyer, ruthless wretch! "Oh, for breath to utter!" But I have done; the atmosphere has become quite clear and refreshing for Calcutta. I can see considerably more than three yards from my own window, and in less than an hour the Government House will

again be visible ; so will Mr. Wilson, the pastry-cook's. I have done. But only this—Dust remember it ! keep it, Dust, in thy vile mind and miserable heart ; dream of it sleeping and waking, for be sure it will come upon thee like a pestilence and a thunder clap ; or, what is more abhorrent to thy dastard nature, like a sudden shower of rain. Dust, as sure as thou art at this moment here, and there, and every-where, I will imitate the example of the illustrious Hamlecar. I will build a temple sacred to Jupiter Pluvius and immortal hate. Thither on ponies and in a gig, will I take my four sons. Thither will I take them in bottle-green jackets and nankeen trowsers ; I will swear them to an eternity of vengeance against thee ; I will give them, to hold water, a pig-skin bag of the largest dimensions a-piece, and send them into the world as Bleestees !*

The transition is appropriate from prose to verse,—from Calcutta dust to Calcutta heat—so here go

CALCUTTA STANZAS.*

For the Month of May.

“ Now is the month of Maying.”—*Old Madrigal.*

Happy the man, whose hair and beard
Are glittering stiff with ice and snow,
Whose purple face with sleet is sear'd,
His nose also.

Happy the man, whose fingers five
Seem to have left him altogether,
And feet are scarcely more alive
In wintry weather.

And happier he, who, heavenly cold,
From warmth and sunshine far away,
Lives, till his freezing blood grows old,
At Hudson's Bay.

He in a beauteous basin, wrought
Of frozen quicksilver, his feet
May lave in water down to nought
Of Fahrenheit.

The whole year round too, if he please,
Far from the sun's atrocious beams,
He may, unbaked by burning breezes,
Live on ice creams.

And if for comfort, or for pride,
He wants shirt, breeches, coat, or vest ;
Let him but bathe, then step outside,
And, Lo—he's drest !

Drest in habiliments of ice,
More bright than those of old put on,
At royal birthdays, by the nice
Beau Skeffington.

Happy the man, again I sing,
Who thus can freeze his life away,
Far from this hot blast's blustering,
At Hudson's Bay.

* Persons, who in the metropolis of British India, perform the service of the London water carts.

Oh, that 'twere mine to be so blest,
 For while my very bones are grilling,
 The thoughts of such a place of rest
 Are really thrilling.

Instead of jackets, I would wear
 A coat of sleet, with snow lapelles,
 Neatly embroidered here and there
 With icicles.

Snow shoes should brace my burn^d feet,
 And how I should enjoy a shiver,
 While snow I'd drink, and snow I'd eat,
 To cool my liver.

I'd tune my pipe by icy Hearne,
 By frozen Coppermine I'd stroll,
 And now and then, might take a turn
 Towards the Pole.

But all in vain I sigh for lands,
 Where happy cheeks with cold look blue,
 While here, 't' the shade, the mercury stands
 At ninety-two.

From these extravaganzas, of which the humour can only be appreciated by those who have sojourned in the "gorgeous East," we pass to the following, which will come home to the dweller in all lands. It is entitled

A CHILDISH THOUGHT.

I.

I would not die when summer's light
 Gladdens the earth so green and fair,
 Nor when the darkness and the blight
 Of winter chills the bitter air.
 No, on some soft and sunny day
 Of autumn let me pass away.

II.

I would not die when all is bright
 And glorious with the glow of noon,
 Nor in the depths of cheerless night,
 When stars are few and sunk the moon ;
 No, I would pass when vale and steep,
 Calm in the tranquil sunset sleep.

III.

I would not that life's star should wane
 While upwards mounting clearly yet,
 Nor the last lingerer in night's train,
 All dim and lonely have it set.
 'Midst heaven's twilight let it fade,
 Absorbed in light, 't' lost in shade.

IV.

Then let me not go hence while still
 Youth flies with hope on wings of gold,
 Nor linger till in age's chill,
 The past, the present, all is cold :
 Nor loath, nor wearied, but resigned,
 Thus would I leave the world behind.

And now we conclude, with the following graphic sketch of a re-

